STEREO RECEIVER

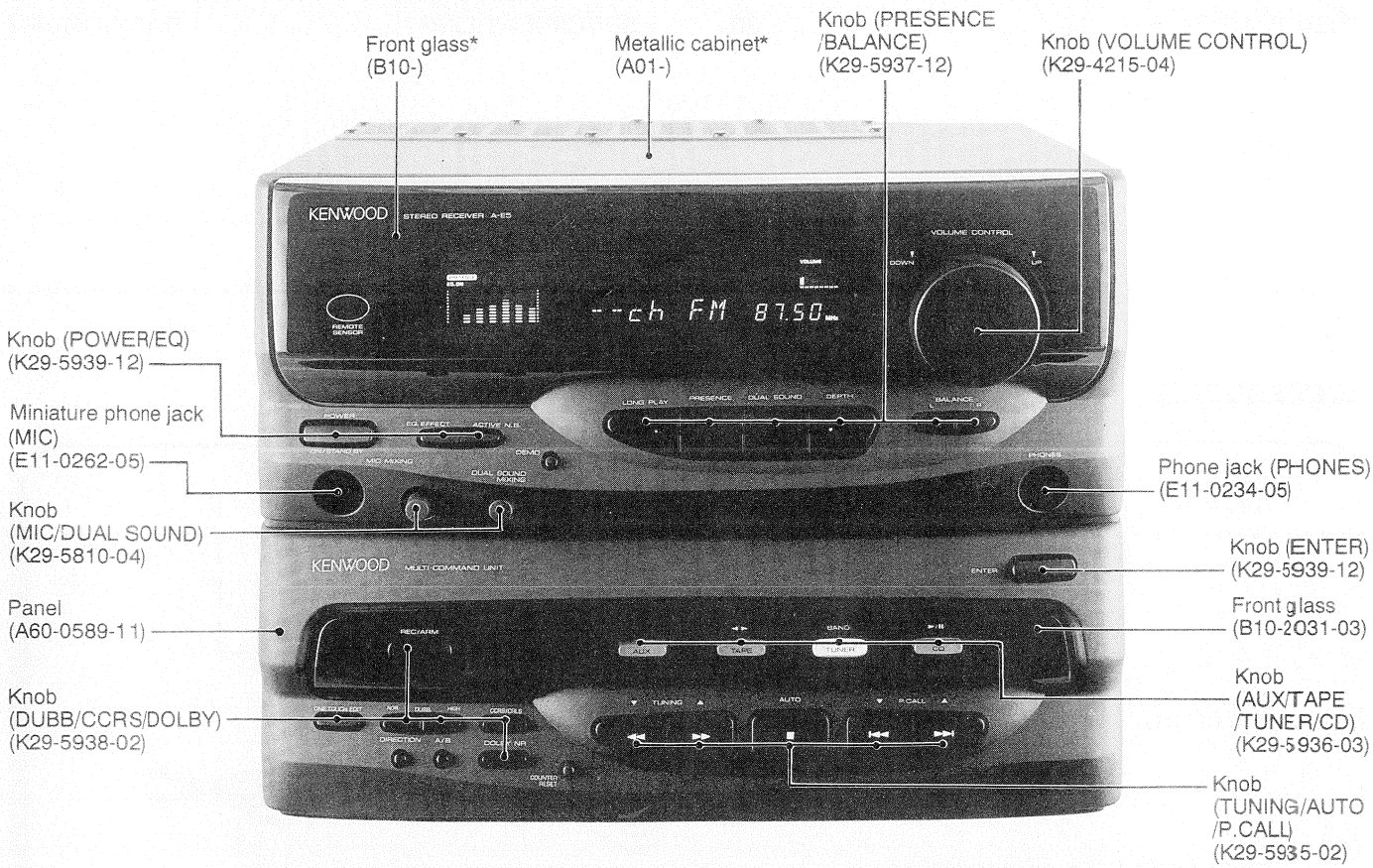
A-E5/L

SERVICE MANUAL

(UD-502/552)

KENWOOD

© 1994-8 PRINTED IN KOREA
B51-4900-00 (K) 3891



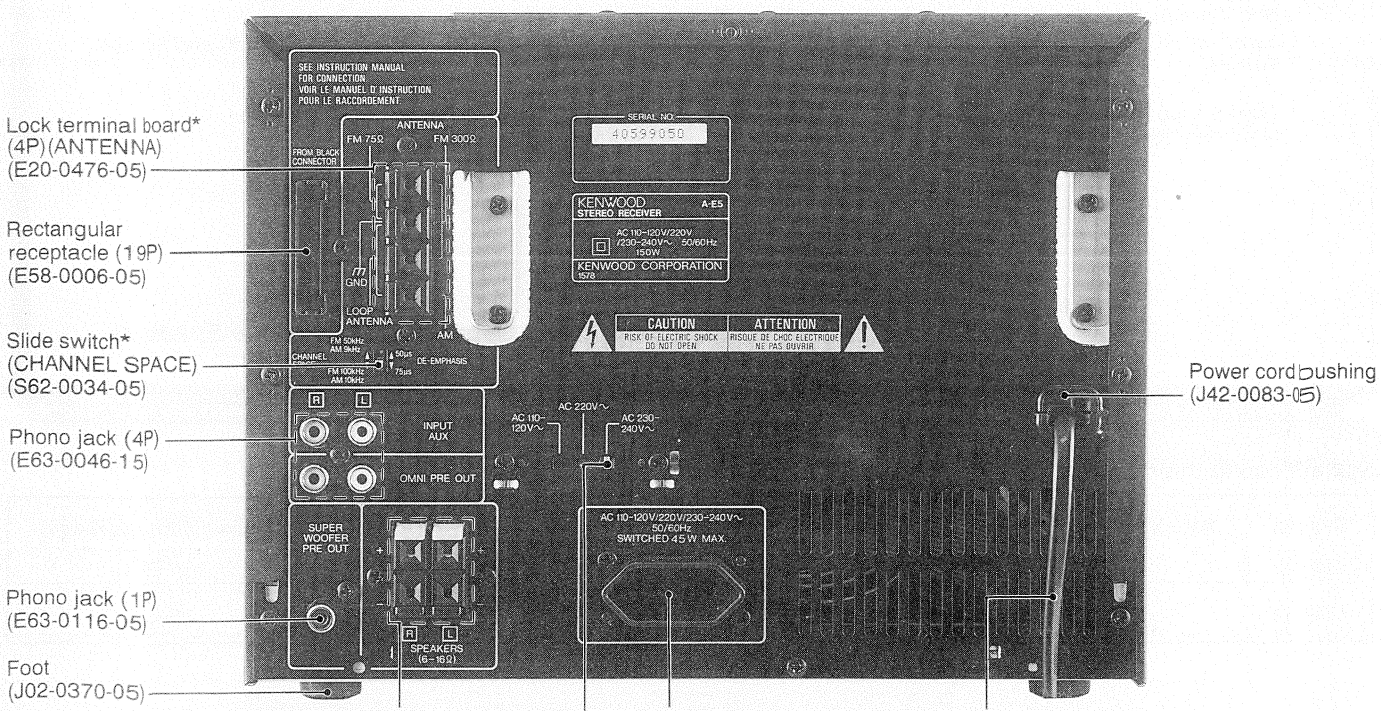

Lock terminal board* (4P)(ANTENNA) (E20-0476-05)
Rectangular receptacle (19P) (E58-0006-05)
Slide switch* (CHANNEL SPACE) (S62-0034-05)
Phono jack (4P) (E63-0046-15)
Phono jack (1P) (E63-0116-05)
Foot (J02-0370-05)
Power cord bushing (J42-0083-05)
Lock terminal board (SPEAKERS) (E70-0045-05)
Slide switch* (AC VOLTAGE SEL) (S31-2322-05)
AC outlet* (E03-)
AC power cord* (E30-)

Photo is A-E5.

* Refer to parts list on page 42.

A-E5/L

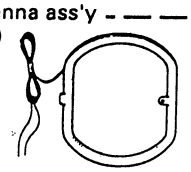
CONTENTS/ACCESSORIES

CONTENTS/ACCESSORIES 2
CONTROL 3
DISASSEMBLY FOR REPAIR 5
BLOCK DIAGRAM 6
CIRCUIT DESCRIPTION 7
ADJUSTMENT 20
WIRING DIAGRAM 22
PC BOARD 23
SCHEMATIC DIAGRAM 29
EXPLODED VIEW 41
PARTS LIST 42
SPECIFICATIONS ..... BACK COVER

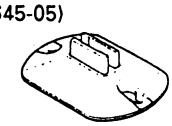
ACCESSORIES

- FM indoor antenna 1
  (T90-0182-15)

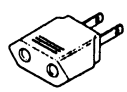
- AM loop antenna ass'y
  (T90-0195-05)



Loop antenna stand
(J19-3645-05)

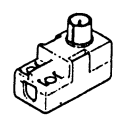


- AC plug adaptor 1
  (E03-0115-05)



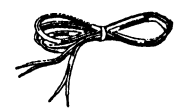
Except for the U.S.A., Canada, Europe, U.K. and Australia. For the unit with a European AC plug in areas other than Europe.

- Antenna adaptor 1
  (T90-0198-05)



For U.K. and Europe.

- Speaker cords 2
  (E31-5479-08)

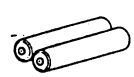


For U.K. and Europe.

- Remote control unit (RC-E5) 8
  (A70-0981-05)

Battery cover
(A09-0106-08)

- Batteries 2



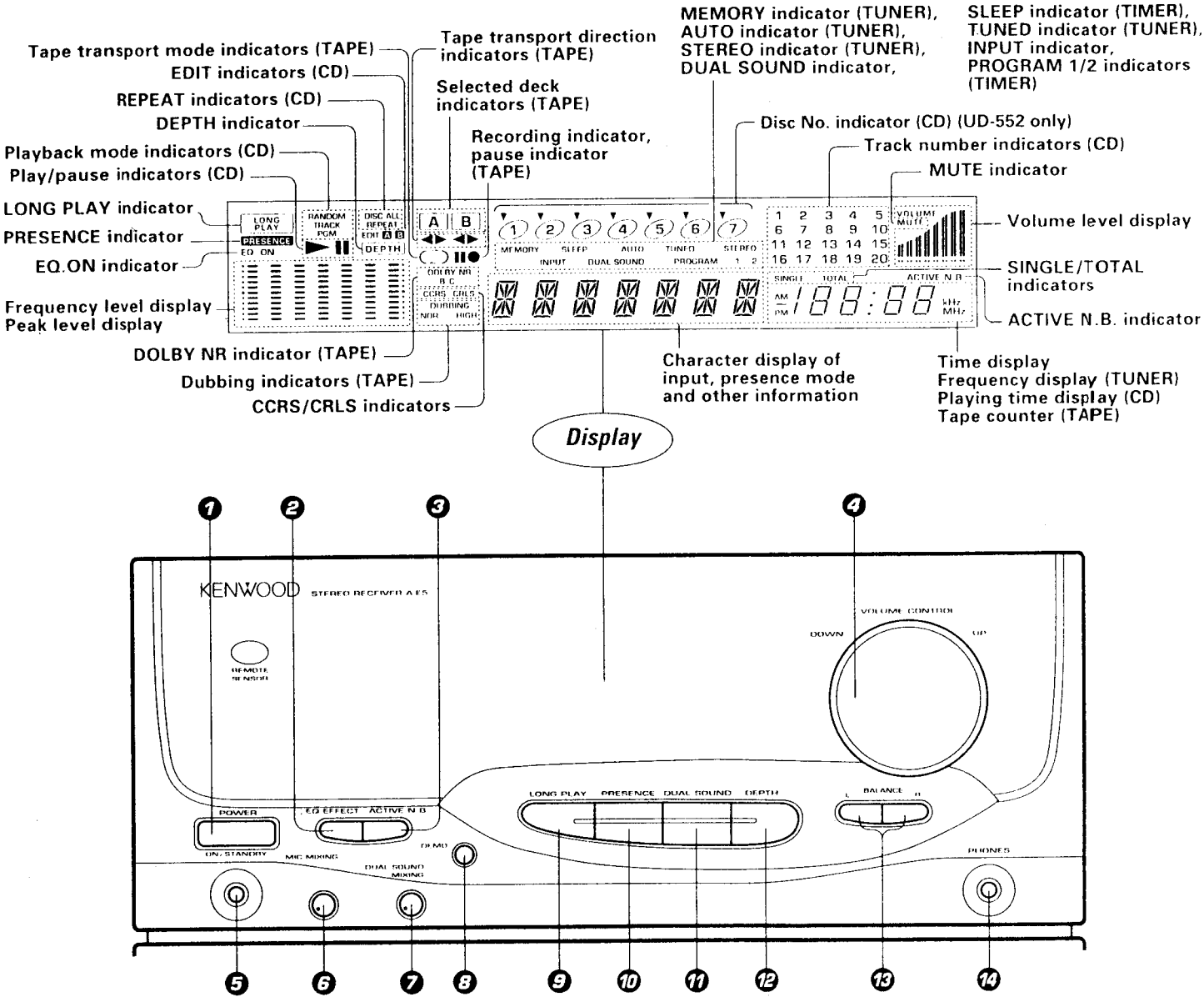
Speaker cords are packed with the Speakers.

System configuration

System	Receiver/Multicommand	Cassette deck/CD player	System carton box (Parts No.)	Speaker (Other package)
UD-502	A-E5/L	X-E5	H60-0225-04	LS-E5
UD-552	A-E5/L	X-ME5	H60-0268-04 (K) H60-0227-04 (other)	LS-E5

CONTROL

RECEIVER SECTION



❶ POWER key
Press to turn the power of the system ON/OFF.

❷ EQ. EFFECT key
Press to select an equalizer curve.

❸ ACTIVE N.B. key

❹ VOLUME CONTROL knob

❺ MIC jack

❻ MIC MIXING knob

❼ DUAL SOUND MIXING knob
Adjust the volume balance between the environmental sound and music.

❽ DEMO key
Press to start demonstration.

❾ LONG PLAY mode key
Press to let the sound play for long hours.

❿ PRESENCE key
Press for presence play.

⓫ DUAL SOUND key
Press for Environmental Sound play or presence mode play.

⓬ DEPTH key
Press to add a depth in the sound field.

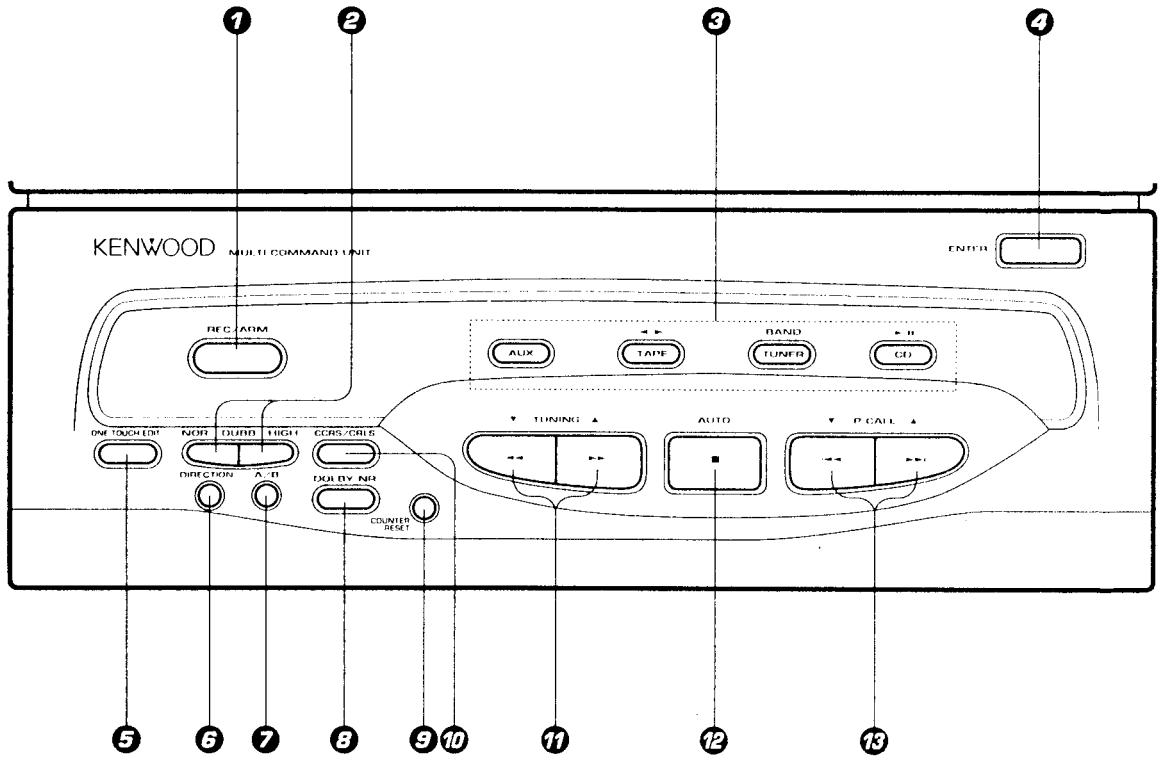
⓭ BALANCE keys (LEFT, RIGHT)
Press to adjust the balance between the left and right volume levels.

⓮ PHONES jack
Insert headphones into this jack.

A-E5/L

CONTROL

MULTI COMMAND UNIT SECTION



❶ REC/ARM key

❷ DUBB. keys (HIGH, NOR.)
Press for tape dubbing.

❸ Input selector keys
CD: Functions as the play/pause key.
TAPE: Functions as the play key.
Pressing during playback changes the tape transport direction.
TUNER: Functions as the BAND key.
AUX: Press to play the AUX input source.

❹ ENTER key

❺ ONE TOUCH EDIT key
Press for simplified CD recording.

❻ DIRECTION switch key

❼ Deck switch keys (A/B)
Press to select the deck to be operated.

❽ DOLBY NR key

❾ COUNTER RESET key
Press to reset the tape counter to 0000.

❿ CCRS/CRLS key

⓫ Fast winding (TUNING) keys
CD, TAPE: Function as the fast forward/backward keys.
TUNER: Function as the TUNING keys.
When power is OFF:
Used to set the timer.

⓬ Stop (AUTO) key
CD, TAPE: Functions as the stop key.
TUNER: Functions as the AUTO key.
When power is OFF:
Activates the clock adjustment mode.

⓭ Skip (P.CALL) keys
CD: Function as the skip keys.
TAPE: Function as the skip key, to search the beginning of music programs.
TUNER: Function as the P.CALL keys.
When power is OFF:
Used to adjust the clock or timer operation.

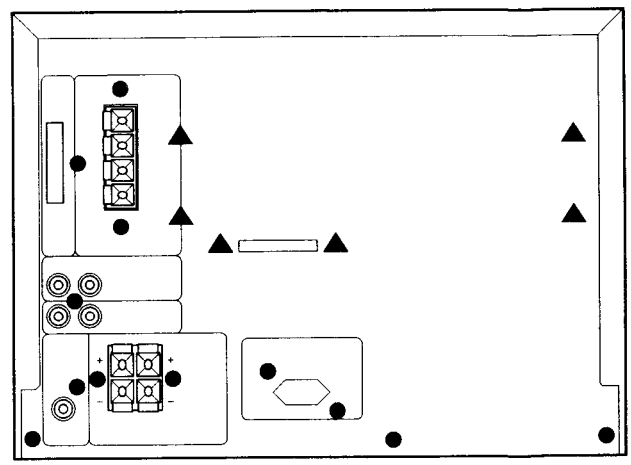
DISASSEMBLY FOR REPAIR

Remove the case in advance.

A) Rear panel

1 Disconnect CN8 of X09-402 (C/7).

2 Remove the 12 screws (❶) of the Rear panel.



●:❶ x12

▲:No need to remove

B) TUNER PCB X05-4460-XX / X05-4472-70

1 Disconnect CN1.

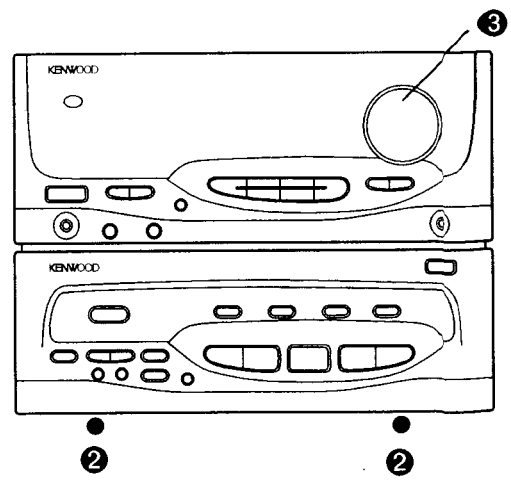
2 While pushing the unit holder, pull the PCB.

C) Front panel

1 Remove the two screws (❷) of the lower side of the panel.

2 Remove the left part of the panel first. Right part, CN7 and CN6 (X09-404 (B/7)) are connected, so remove the panel carefully.

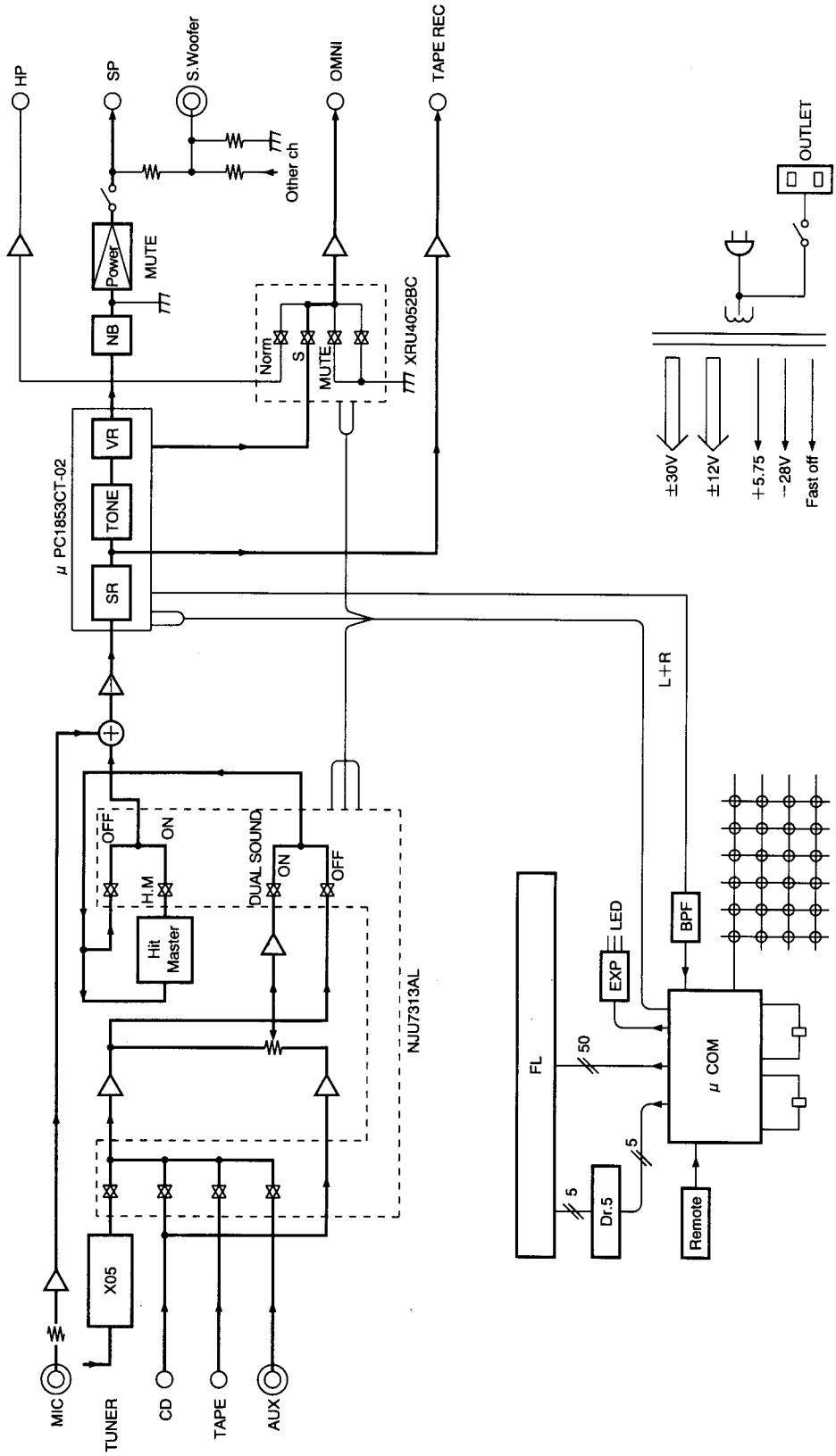
3 When removeing the PCB, remove the VOLUME CONTROL knob (❸) by loosening the Allen screws.



Caution : If Front panel is removed, you can not operate A-E5/L. Don't remove the Front panel when checking the PCB.

A-E5/L

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

μ-com: M381907MA-074FP (X14: IC4)

1. Test mode

1-1 Test mode with the main unit keys

(1) Setting procedure

While pressing the CD key, plug the AC power cord to the power outlet.

(2) Cancellation

Unplug the AC power cord. The initial setting will take effect and the test mode will be canceled.

(3) Description

1. Auto POWER ON
- When AC power cord is plugged while pressing the CD key, the POWER will turn ON and all function will be at the initial setting. (Input selector=TUNER)

2. ALL LED ON mode
- When The AC power cord is plugged while pressing the CD key, all the LEDs will turn ON.
- Two colours LED change to GRN and RED alternately. (250ms interval)
- When some main unit key is pressed, ALL LED ON mode will be canceled and all function will return the LEDs to normal.

3. Others
- The operation of main unit keys and remote controller keys during the test mode, refer to the table below.
- The MUTE function does not work during the test mode. (When POWER ON, MUTE is effective.)
- Test mode is not canceled when the input selector is moved TUNER to another source.
- Headphone detection is effective during the test mode.

1-2 Test mode with serial communications

(1) Setting procedure

- Enter the TEST ON code. (C27FH)

(2) Cancellation

- Enter the TEST OFF code (C27EH) (Not initialized)
- Unplug the AC power cord. (Initialized)

(3) Description

- The MUTE function does not work during the serial test mode.
- When the codes are received, the same codes are transmitted.
- Codes received during the serial test mode are effective irrespective of the display mode.
- All the LEDs will turn ON. ALL LED ON is cancelled by inputting the cancelling code and returned the LEDs to normal.
- Headphone detection is effective during the test mode.
- Inputting codes of numeric key call memory. (+10 key code is as same function as normal tuner function.)
- Headphone detection is effective during the serial test mode.

	Key	Description		Key	Description
1	POWER	Normal operation	16	EQ.	Normal operation
2	VOLUME UP	Normal operation	17	O.T.E.	Tone max.
3	VOLUME DOWN	Normal operation	18	CCRS	Tone min.
4	CD	Normal operation	19	ENTER	Tone flat
5	TUNER	Normal operation	20	DUAL SOUND	Normal operation
6	TAPE	Normal operation	21	DEPTH	Normal operation
7	AUX	Normal operation	22	BALANCE L	Balance L max
8	■	Normal operation	23	BALANCE R	Balance R max
9	◀◀	Normal operation	24	REC	Balance center
10	▶▶	Normal operation	25	DOLBY NR	MUTE ON/OFF
11	⏮	Normal operation	26	COUNTER RESET	All goes off ON/OFF
12	⏭	Normal operation	27	ACTIVE N. B.	Normal operation
13	DUBB. NORMAL	Master VOL min.	28	DIRECTION	HIT MASTER ON
14	DUBB. HIGH	Master VOL max.	29	A/B	HIT MASTER OFF
15	PRESENCE	Normal operation			

Amplifier and Tuner serial test code (C 2 XXH) NEW

TYPE / FUNC	AMP								TUNER							
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	POWER OFF									0						
1	POWER ON									1						
2			HIT MASTER OFF						TMUTE OFF	2						
3	CD		HIT MASTER ON						TMUTE ON	3						
4	TUNER								AUTO STEREO	4						
5	TAPE 1 (TAPE A)								MONO	5						
6									TUNED OFF	6						
7	AUX				BALANCE Lch MAX				TUNED ON	7						
8					BALANCE Lch/Rch CENTER					8						
9					BALANCE Rch MAX			Full LEDs off OFF		9						
A								Full LEDs off ON		+10						
B								Full LEDs lights OFF		BAND FM						
C								Full LEDs lights ON		BAND AM/MW						
D	MUTE ON							AMP INITIAL		BAND TV/LW						
E	OMI MUTE ON	SPEAKER OFF (SP A OFF)	DUAL SOUND OFF					AMP serial test OFF		AUTO TUNING DOWN						
F	MUTE ALL OFF	SPEAKER ON (SP A ON)	DUAL SOUND ON					AMP serial test ON		AUTO TUNING UP						

SURROUND & GE serial test code (C 3 XXH) NEW

TYPE / FUNC	SURROUND								GE							
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0																
1																
2																
3																
4					DEPTH OFF											
5					DEPTH ON											
6									TONE flat							
7									TONE max.							
8									TONE min.							
9																
A				PRESENCE ARENA												
B				PRESENCE JAZZ CLUB												
C				PRESENCE STADIUM												
D																
E																
F																

Electronic Volume serial test code (C 4 XXH) NEW

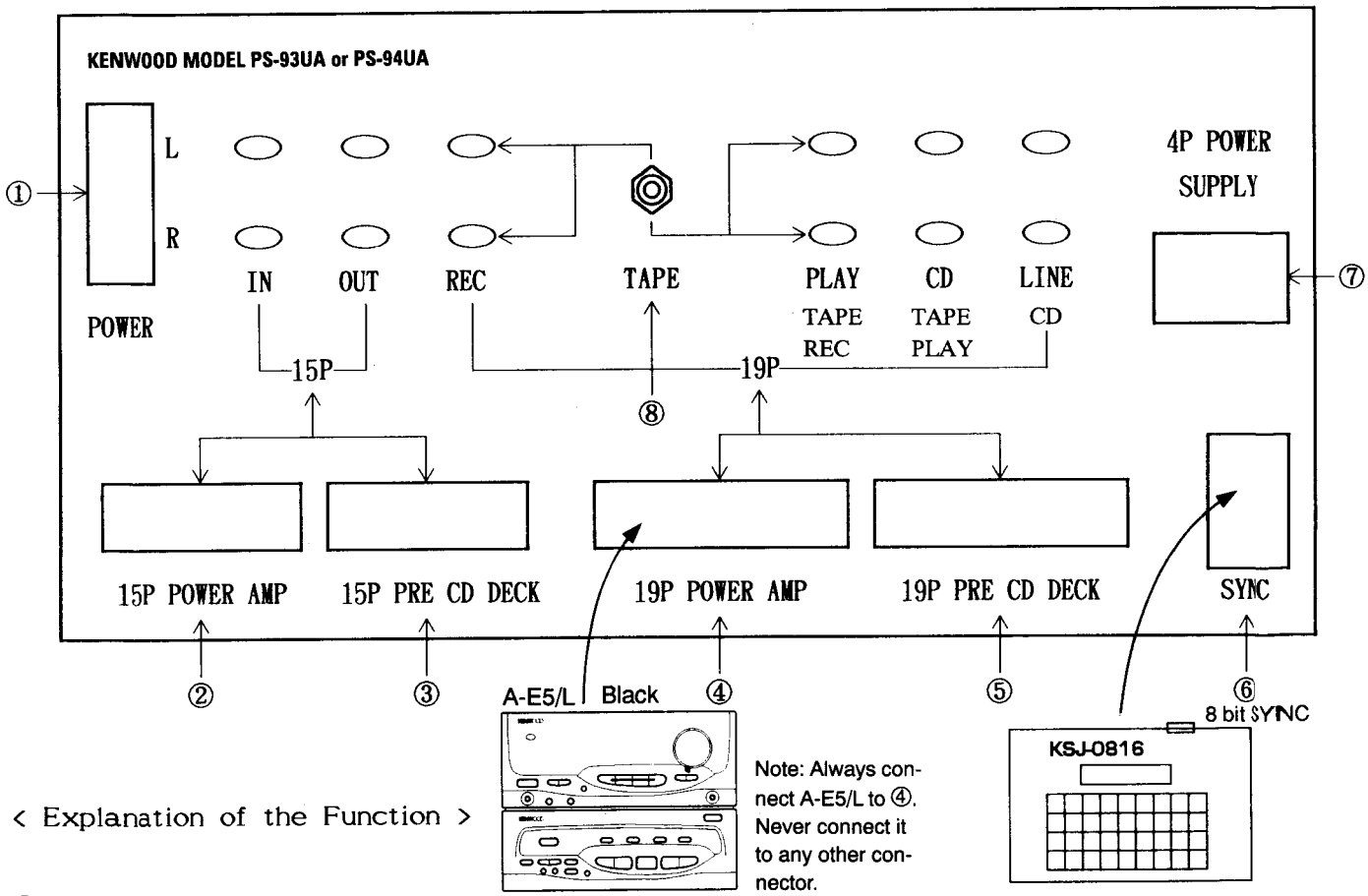
TYPE / FUNC	SURROUND								GE							
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	VOLUME 0	VOLUME 16	VOLUME 32	VOLUME 48												
1	VOLUME 1	VOLUME 17	VOLUME 33	VOLUME 49												
2	VOLUME 2	VOLUME 18	VOLUME 34	VOLUME 50												
3	VOLUME 3	VOLUME 19	VOLUME 35	VOLUME 51												
4	VOLUME 4	VOLUME 20	VOLUME 36	VOLUME 52												
5	VOLUME 5	VOLUME 21	VOLUME 37	VOLUME 53												
6	VOLUME 6	VOLUME 22	VOLUME 38	VOLUME 54												
7	VOLUME 7	VOLUME 23	VOLUME 39	VOLUME 55												
8	VOLUME 8	VOLUME 24	VOLUME 40	VOLUME 56												
9	VOLUME 9	VOLUME 25	VOLUME 41	VOLUME 57												
A	VOLUME 10	VOLUME 26	VOLUME 42	VOLUME 58												
B	VOLUME 11	VOLUME 27	VOLUME 43	VOLUME 59												
C	VOLUME 12	VOLUME 28	VOLUME 44	VOLUME 60												
D	VOLUME 13	VOLUME 29	VOLUME 45													
E	VOLUME 14	VOLUME 30	VOLUME 46													
F	VOLUME 15	VOLUME 31	VOLUME 47													

CIRCUIT DESCRIPTION

PS-93UA or PS-94UA Operation Manual

Power supply for the audio model UD series.

Audio signal lines in 15P and 19P flat cable are connected to RCA connectors.



< Explanation of the Function >

① POWER SWITCH

This switch should be turned on when using the 15 pin PRE CD DECK ③, the 19 pin PRE CD DECK ⑤ and the 4 pin power supply ⑦.

② 15 PIN POWER AMP

Connect to a system which require the 15 pin flat cable for connection, when check the power amp. section.

AC power source is not output from the terminal.

The signals are input and output to the RCA terminals and SYNC terminal on the front panel.

(ex : A-711, A-722, A-A7, B-922, B-A9, etc)

CIRCUIT DESCRIPTION

③ 15 PIN PRE CD DECK

Connect to a system which require the 15 pin flat cable for connection, when check the functions except power section AMP.
The AC power are supplied to the pin No.12-13 for 9 V and the pin No.14-15 for 16 V from the terminal.
The signal flow are same as 15 pin power AMP terminal.
(ex : DP-711, DP-722, DP-A7, C-922, X-711, X-722, X-A7, etc)

④ 19 PIN POWER AMP

Connect to a system which require the 19 pin flat cable for connection, when check the power AMP section.
The AC power is not supplied in the terminal.
The signals are input and output to the RCA terminal on the front panel.
(ex : A-B7, A-B3, B-B9, A-E5, A-E7, B-E9, etc)

⑤ 19 PIN PRE CD DECK

Connect to a system which require the 19 pin flat cable for connection, when check the component except power AMP. This terminal have the 4 system AC power supplies which is located to the pin No.13 to pin No.19.
(ex : X-B9, X-B5, X-B3, C-B9, DP-B5, DP-MB5, X-E5, X-ME5, X-E7, X-ME7, DP-E9 X-E9, C-E9 etc)

⑥ SYNC TERMINAL

Connect to the SYNCHRO CHECK JIG KSJ-0816. It can be controled the system code 8 bit or 16 bit to the test set.

⑦ 4 PIN POWER SUPPLY

Output terminal for AC 9 V and AC 16 V.
It can be used supply the AC power to DECK, CD, TUNER for MIDI system.

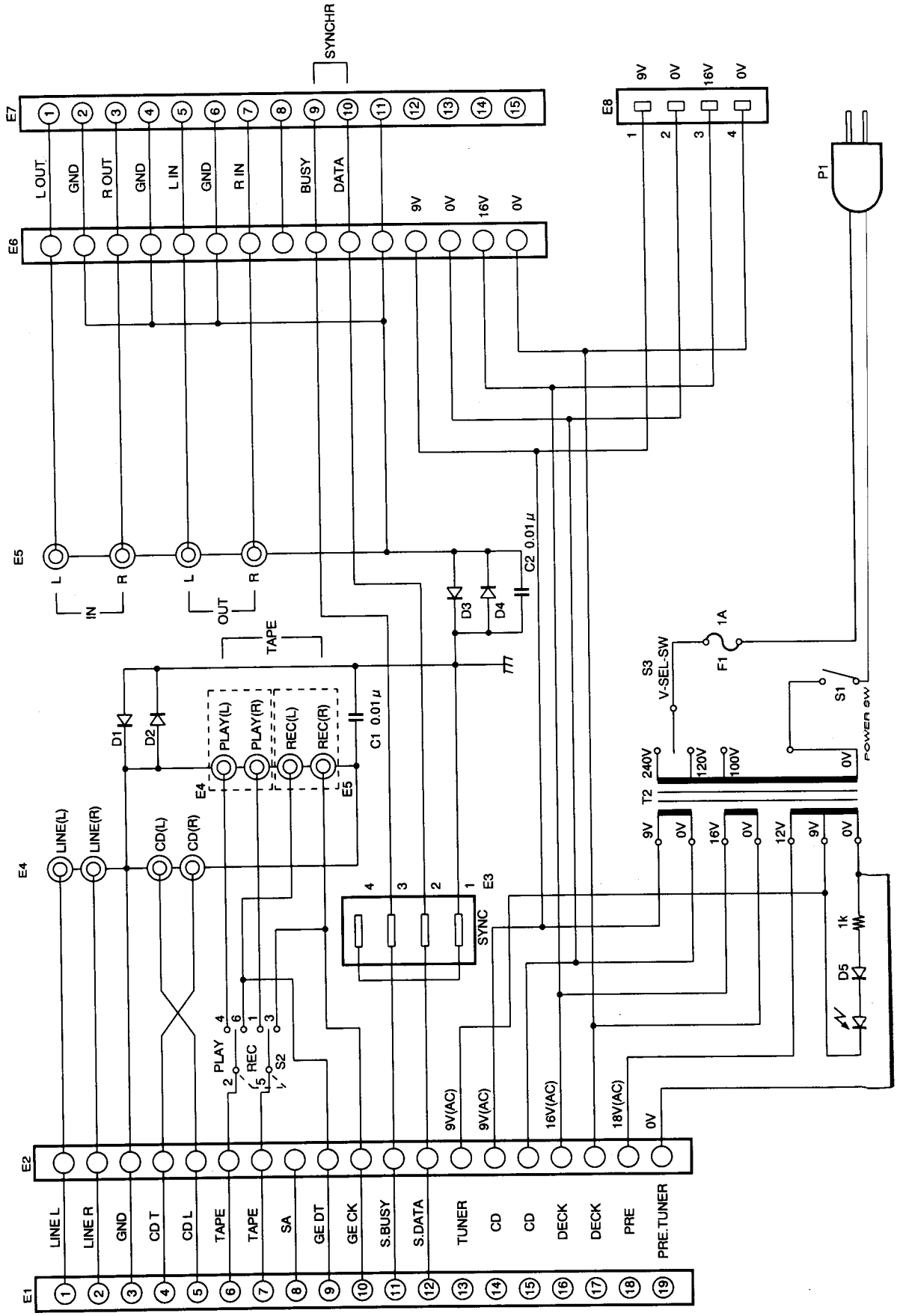
⑧ TAPE SWITCH

The signal for deck of 19 pin terminal are share a well with the REC and PLAY. So, please change the TAPE SW when DECK mode is PLAY or STOP then turn to the play, when DECK mode is REC or REC pause then turn to the REC.
(ex : X-B9, X-B5, X-B3, X-E9)

< NOTE >For limited power supply's capacity, maximum connection is only one sets.
Do not connect a set together both with the 15 pin terminal and 19 pin terminal.
In/output signals will shift as specified in the caution label when A-E5, A-E7, X-E5, X-ME5, X-E7, and X-ME7.

CIRCUIT DESCRIPTION

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

1-3 Backup operation

The receiver microcomputer goes into backup mode when the AC power goes off. Therefore, the last state when the power was turned off is stored the next time the power is turned on.

1) Backup mode

Each 1 ms, the receive microcomputer checks the CE port and if CE=low, it goes into backup mode. When it goes into backup mode, it carries out the series of operations below, then stops the main clock (8.38 MHz). It does not come out of backup mode until a reset is input.

2) Operations upon entry into backup mode

- Interrupts inhibited
- Mute on
- Fluorescent display drive stopped
- A/D stopped
- SIO stopped
- Subclock (32 kHz) stopped
- Interrupt enable flags all cleared
- Hard timer stopped
- Port data set to all 0s
- Port mode set
  (Setting the input ports to input mode and the input/output ports and the output ports to output mode is easy.)
- Data set in backup check RAM (cleared in test mode)
- Main clock stopped (to go into stop mode)

3) Data restoration upon reset

When the system is reset, if the backup check RAM value matches the value set when the system went into backup mode, then the modes below are restored.

- AMP -

- Power mode
  (If the last state was power on, the power is turned on when the system is reset.)
  (If the last state was power off, the power is turned off when the system is reset.)
- Last selector mode
- Master volume
- EQ. and Presence modes
- Active N.B. state
- Last clock data
  (However, the clock is not counted and the last time data blinks.)
- Program setting contents and setting mode

- Tuner -

- Last band and preset channels and frequencies
- Last frequency and preset channels for each band
- Preset memory data (Ch. 1 - Ch. 20)
- AUTO/MANUAL (MONO) mode

1-4 Default values

The microcomputer RAM is all cleared (initialized) to initialize the system (set).

1-5 Initialization conditions

- When the AC power is turned on while pressing the main unit ENTER key
- During serial test mode, when serial code C27DH is received
- When the power cord is unplugged during test mode entered with a key on the main unit or during serial test mode
- When the backup data is destroyed

Under the above conditions, the receiver microcomputer is initialized. When it is initialized, it goes into the states in the table below (default states).

Default states

System	Power off
Clock Prog.	Clock stop (0:00 a.m.) Prog. operation mode:OFF Prog. 1: ON=0:00AM OFF=0:00AM MOD=PLAY SOC=TUNER (Ch 1) Prog. 2: ON=0:00AM OFF=0:00AM MOD=PLAY SOC=TUNER (Ch 1)
Amp	VOLUME: 7SEG=5 (μPC1853 VOL data=8) Selector: TUNER EQ.:OFF PRESENCE:OFF LONG PLAY:OFF ACTIVE N.B.:OFF MUTING:OFF
Tuner	Band:FM Last band FM: P.CH=--CH FREQ=min (76.0 MHz or 87.5 MHz) AM (MW): P.CH=--CH FREQ=min (530 kHz or 531 kHz) LW: P.CH=--CH FREQ=min (153 kHz) P. CH memory Ch. 1 - Ch. 20: Test frequency Tuning mode:AUTO (AUTO STEREO)

CIRCUIT DESCRIPTION

1-6 Timer operation

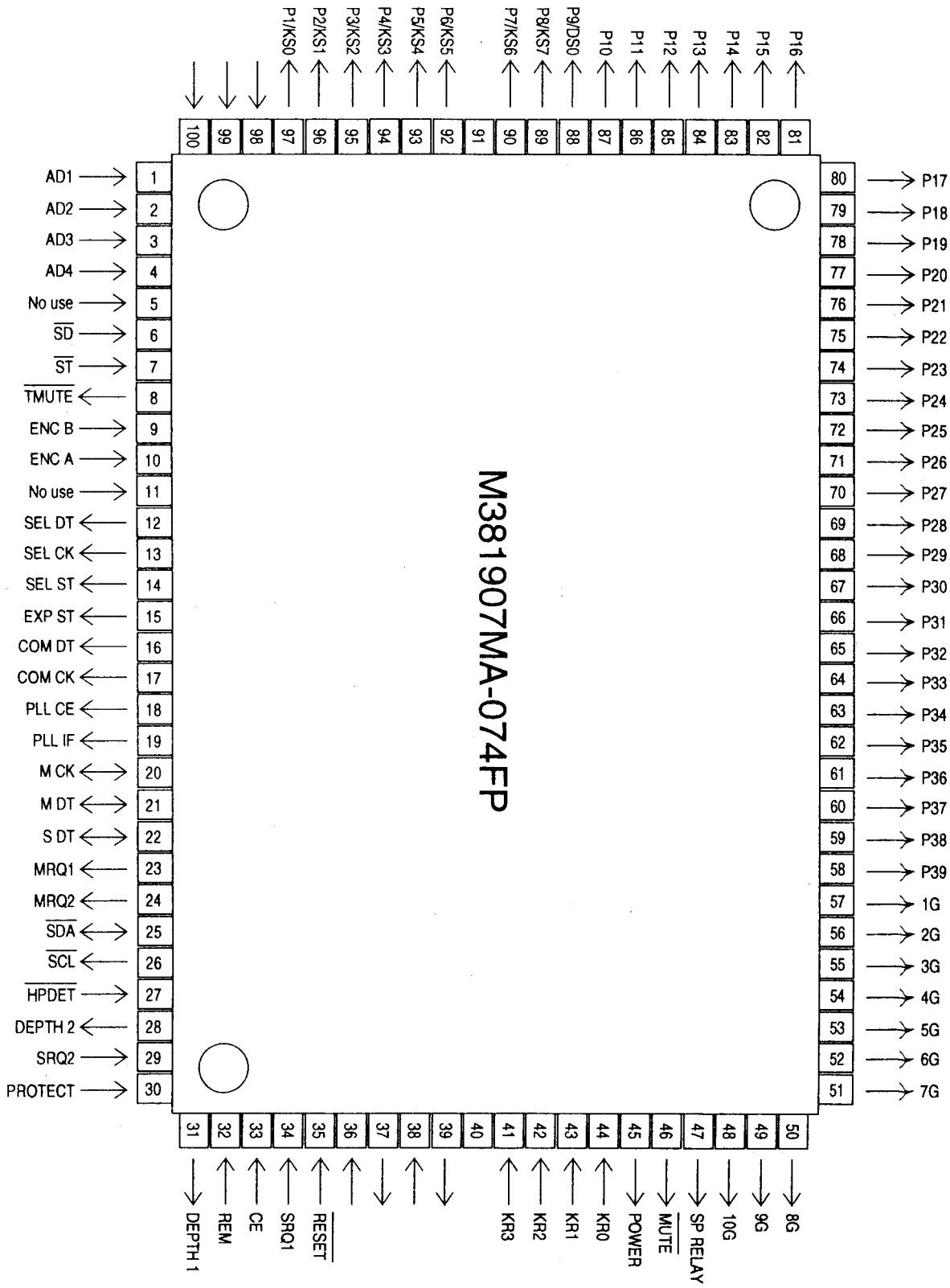
There are two program timers, Prog. 1 and Prog. 2. There are three execution modes: Prog. 1 only execution, Prog. 2 only execution, and Prog. 1 and Prog. 2 execution. The system is switched among these execution modes by pressing the ▶▶ (EXEC.) key with the power off.

Each program timer operates while the power is off when its execution mode is on. However, if the on time and the off time are the same, they do not operate even if their execution mode is on.

When the power is turned on with the program timer, the display for whichever of Prog. 1 or Prog. 2 is operating blinks on/off every 500 ms. When the mode switches to normal power on, this blinking stops. In the current specifications, since program timer control becomes impossible when the power is on, when the power is turned on with a program timer, this is indicated. The only way to leave the mode of the power having been turned on by a program timer is to turned the power off, then on again.

CIRCUIT DESCRIPTION

Terminal connection



CIRCUIT DESCRIPTION

1-7 Terminal description

Pin No.	Pin Name	Name	I/O	Description	Note
1	P 77/AN 7	AD 1	(A/D)	SPEANA SIGNAL LEVEL	A/D : 63 Hz
2	P 76/AN 6	AD 2	(A/D)	SPEANA SIGNAL LEVEL	A/D : 400 Hz
3	P 75/AN 5	AD 3	(A/D)	SPEANA SIGNAL LEVEL	A/D : 2.5 kHz
4	P 74/AN 4	AD 4	(A/D)	SPEANA SIGNAL LEVEL	A/D : 16 kHz
5	P 73/AN 3		I	NO USE	
6	P 72/AN 2	$\overline{SD}$	I	SD DETECT	H : no tuned L : tuned
7	P 71/AN 1	$\overline{ST}$	I	STEREO DETECT	H : monoral L : stereo
8	P 70/AN 0	$\overline{TMUTE}$	O	TUNER MUTE CONTROL	H : tuner mute OFF L : tuner mute ON
9	PB 3	ENCB	I	ENCORDER B SIGNAL	
10	PB 2/DA	ENCA	I	ENCORDER A SIGNAL	
11	P 57/$\overline{SRDY}$ 3/AN 15		I	NO USE	
12	P 56/SCLK 3/AN 14	SELDT	O	TC 9164 DATA	
13	P 55/SOUT 3/AN 13	SELCK	O	TC 9164 CLOCK	
14	P 54/SIN 3/AN 12	SELST	O	TC 9164 STROBE	
15	P 53/$\overline{SRDY}$ 2/AN 11	EXPST	O	M 66310 STROBE	
16	P 52/SCLK 2/AN 10	COMDT	O	M 66310/LC 7218 DATA	
17	P 51/SOUT 2/AN 9	COMCK	O	M 66310/LC 7218 CLOCK	
18	P 50/SIN 2/AN 8	PLLCE	O	LC 7218 CE	
19	P 67/$\overline{SRDY}$ 1/CS /SCLK 12	PLLIF	O	LC 7218 DO	
20	P 66/SCLK 11	MCK	I/O	µCOM-µCOM MASTER CLOCK	
21	P 65/SOUT 1	MDT	I/O	µCOM-µCOM MASTER DATA/SDATA	
22	P 64/SIN 1	SDT	I/O	µCOM-µCOM SLAVE DATA/SBUSY	
23	P 63/CNTR 1	MRQ 1	O	µCOM-µCOM MASTER REQUEST 1 (CD)	
24	P 62/CNTR 0	MRQ 2	O	µCOM-µCOM MASTER REQUEST 2 (DECK)	
25	P 61/PWM	$\overline{SDA}$	I/O	µPC 1853 DATA (I^2B)	
26	P 60	$\overline{SCL}$	O	µPC 1853 CLOCK (I^2B)	
27	P 47/T 3 OUT	$\overline{HPDET}$	I	HEAD PHONE DETECT	H : headphone OFF L : headphone ON
28	P 46/T 2 OUT	DEPTH 2	O	DEPTH CIRCUIT CONTROL 2	H : omni circuit ON L : omni circuit OFF
29	P 45/INT 1/ZCR	SRQ 2	I	µCOM-µCOM SLAVE REQUEST 2 (DECK)	
30	P 44/INT 4	PROTECT	I	PROTECTION DETECT	H : protection L : normal
31	P 43/INT 3	DEPTH 1	O	DEPTH CIRCUIT CONTROL 1	H : depth circuit ON L : depth circuit OFF
32	P 42/INT 2	REM	I	REMOCON SIGNAL	
33	P 41	CE	I	CHIP ENABLE	H : enable L : disable
34	P 40/INT 0	SRQ 1	I	µCOM-µCOM SLAVE REQUEST 1 (CD)	
35	$\overline{RESET}$	$\overline{RESET}$	I	RESET (µCOM HARD RESET)	
36	PB 1/XCIN		I	32.768 kHz CRYSTAL	
37	PB 0/XCOUT		O	32.768 kHz CRYSTAL	
38	XIN		I	8.38 MHz CERAMICS	

CIRCUIT DESCRIPTION

Pin No.	Pin Name	Name	I/O	Description	Note
39	XOUT		O	8.38 MHz CERAMICS	
40	VSS		—	GND (μCOM POWER SUPPLY	
41	P 27	KR 3	I	KEY RETURN 3	
42	P 26	KR 2	I	KEY RETURN 2	
43	P 25	KR 1	I	KEY RETURN 1	
44	P 24	KR 0	I	KEY RETURN 0	
45	P 23/DIG 19	POWER	O	POWER RELAY CONTROL	H : power relay ON L : power relay OFF
46	P 22/DIG 18	$\overline{\text{MUTE}}$	O	MUTE CONTROL	H : mute OFF L : mute ON
47	P 21/DIG 17	SPRELAY	O	SPEAKER RELAY CONTROL	H : speaker relay ON L : speaker relay OFF
48	P 20/DIG 16	10 G	O	FL GRID (10 G)	
49	P 17/DIG 15	9 G	O	FL GRID (9 G)	
50	P 16/DIG 14	8 G	O	FL GRID (8 G)	
51	P 15/DIG 13	7 G	O	FL GRID (7 G)	
52	P 14/DIG 12	6 G	O	FL GRID (6 G)	
53	P 13/DIG 11	5 G	O	FL GRID (5 G)	
54	P 12/DIG 10	4 G	O	FL GRID (4 G)	
55	P 11/SEG 41/DIG 9	3 G	O	FL GRID (3 G)	
56	P 10/SEG 40/DIG 8	2 G	O	FL GRID (2 G)	
57	P 7/SEG 39/DIG 7	1 G	O	FL GRID (1 G)	
58	P 6/SEG 38/DIG 6	P 39	O	FL SEGMENT (P 39)	
59	P 5/SEG 37/DIG 5	P 38	O	FL SEGMENT (P 38)	
60	P 4/SEG 36/DIG 4	P 37	O	FL SEGMENT (P 37)	
61	P 3/SEG 35/DIG 3	P 36	O	FL SEGMENT (P 36)	
62	P 2/SEG 34/DIG 2	P 35	O	FL SEGMENT (P 35)	
63	P 1/SEG 33/DIG 1	P 34	O	FL SEGMENT (P 34)	
64	P 0/SEG 32/DIG 0	P 33	O	FL SEGMENT (P 33)	
65	P 37/SEG 31	P 32	O	FL SEGMENT (P 32)	
66	P 36/SEG 30	P 31	O	FL SEGMENT (P 31)	
67	P 35/SEG 29	P 30	O	FL SEGMENT (P 30)	
68	P 34/SEG 28	P 29	O	FL SEGMENT (P 29)	
69	P 33/SEG 27	P 28	O	FL SEGMENT (P 28)	
70	P 32/SEG 26	P 27	O	FL SEGMENT (P 27)	
71	P 31/SEG 25	P 26	O	FL SEGMENT (P 26)	
72	P 30/SEG 24	P 25	O	FL SEGMENT (P 25)	
73	P 97/SEG 23	P 24	O	FL SEGMENT (P 24)	
74	P 96/SEG 22	P 23	O	FL SEGMENT (P 23)	
75	P 95/SEG 21	P 22	O	FL SEGMENT (P 22)	
76	P 94/SEG 20	P 21	O	FL SEGMENT (P 21)	
77	P 93/SEG 19	P 20	O	FL SEGMENT (P 20)	
78	P 92/SEG 18	P 19	O	FL SEGMENT (P 19)	
79	P 91/SEG 17	P 18	O	FL SEGMENT (P 18)	
80	P 90/SEG 16	P 17	O	FL SEGMENT (P 17)	

CIRCUIT DESCRIPTION

Pin No.	Pin Name	Name	I/O	Descritpion	Note
81	P 87/SEG 15	P 16	O	FL SEGMENT (P 16)	
82	P 86/SEG 14	P 15	O	FL SEGMENT (P 15)	
83	P 85/SEG 13	P 14	O	FL SEGMENT (P 14)	
84	P 84/SEG 12	P 13	O	FL SEGMENT (P 13)	
85	P 83/SEG 11	P 12	O	FL SEGMENT (P 12)	
86	P 82/SEG 10	P 11	O	FL SEGMENT (P 11)	
87	P 81/SEG 9	P 10	O	FL SEGMENT (P 10)	
88	P 80/SEG 8	P 9/DS 0	O	FL SEGMENT (P 9)/DIODE SCAN 0	
89	PA 7/SEG 7	P 8/KS 7	O	FL SEGMENT (P 8)/KEY SCAN 7	
90	PA 6/SEG 6	P 7/KS 6	O	FL SEGMENT (P 7)/KEY SCAN 6	
91	VCC		—	VDD (µCOM POWER SUPPLY)	
92	PA 5/SEG 5	P 6/KS 5	O	FL SEGMENT (P 6)/KEY SCAN 5	
93	PA 4/SEG 4	P 5/KS 4	O	FL SEGMENT (P 5)/KEY SCAN 4	
94	PA 3/SEG 3	P 4/KS 3	O	FL SEGMENT (P 4)/KEY SCAN 3	
95	PA 2/SEG 2	P 3/KS 2	O	FL SEGMENT (P 3)/KEY SCAN 2	
96	PA 1/SEG 1	P 2/KS 1	O	FL SEGMENT (P 2)/KEY SCAN 1	
97	PA 0/SEG 0	P 1/KS 0	O	FL SEGMENT (P 1)/KEY SCAN 0	
98	VEE		—	−30 V (µCOM POWER SUPPLY)	
99	AVSS		—	GND (A/D REFERENCE VOLTAGE)	
100	VREF		—	+5 V (A/D REFERENCE VOLTAGE)	

ADJUSTMENT

X05-4472-70 (E, T type)

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION SELECTOR: FM							
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±75kHz dev 60dBμ(ANT input)	Connect a DC voltmeter between TP3 and TP4. (X05-)	AUTO or MONO 98.0MHz	L3 (X05-)	0V	(a)
					L4 (X05-)	Minimum distortion.	
2	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev Selector: L or R Pilot: ±6.75kHz dev. 60dBμ(ANT input)	(B)	98.0MHz	IFT (W02-)	Minimum distortion. (L or R)	
3	SEPARATION	(C) 98.0MHz Stereo signal 60dBμ(ANT input)	(B)	AUTO 98.0MHz	VR3 (X05-)	Minimum crosstalk.	
4	TUNING LEVEL	(A) 98.0MHz 0 dev 14dBμ(ANT input) 75Ω 18dBμ(ANT input) 300Ω	(B)	AUTO or MONO 98.0MHz	VR1 (X05-)	Adjust VR1 and stop at the point where ED1 (TUNED) goes ON.	
AM SECTION SELECTOR: AM(MW)							
(1)	TUNING LEVEL	(D) 1008 kHz 20 dBμ(ANT input)	(B)	1008 kHz	VR2 (X05-)	Adjust VR2 and stop at the point where ED1 (TUNED) goes ON.	

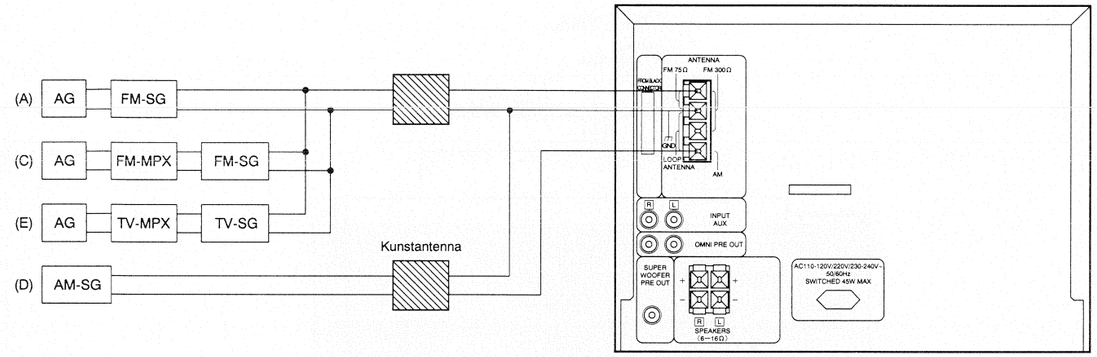
X05-446X-XX (ENGLISH)

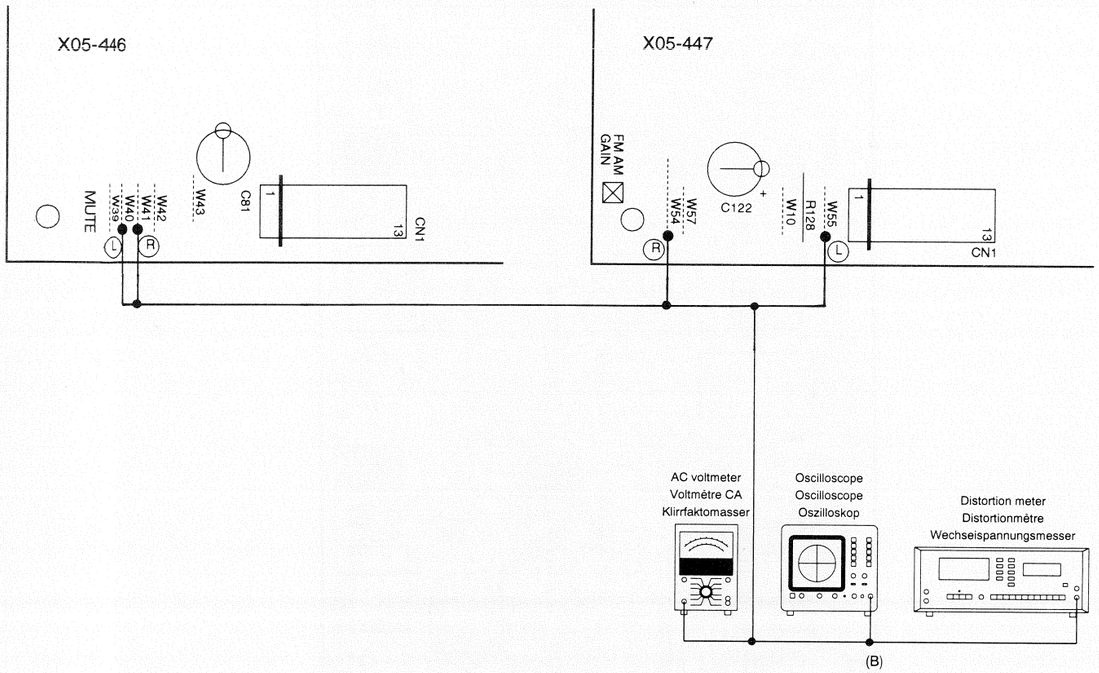
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION Unless otherwise specified, the individual switches should be set as following: BAND: FM							
1	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev Selector: L or R 60dBμ(ANT input)	(B)	AUTO 98.0MHz	IFT (W02-)	Minimum distortion	

X05-446X-XX (ESPANÕL)

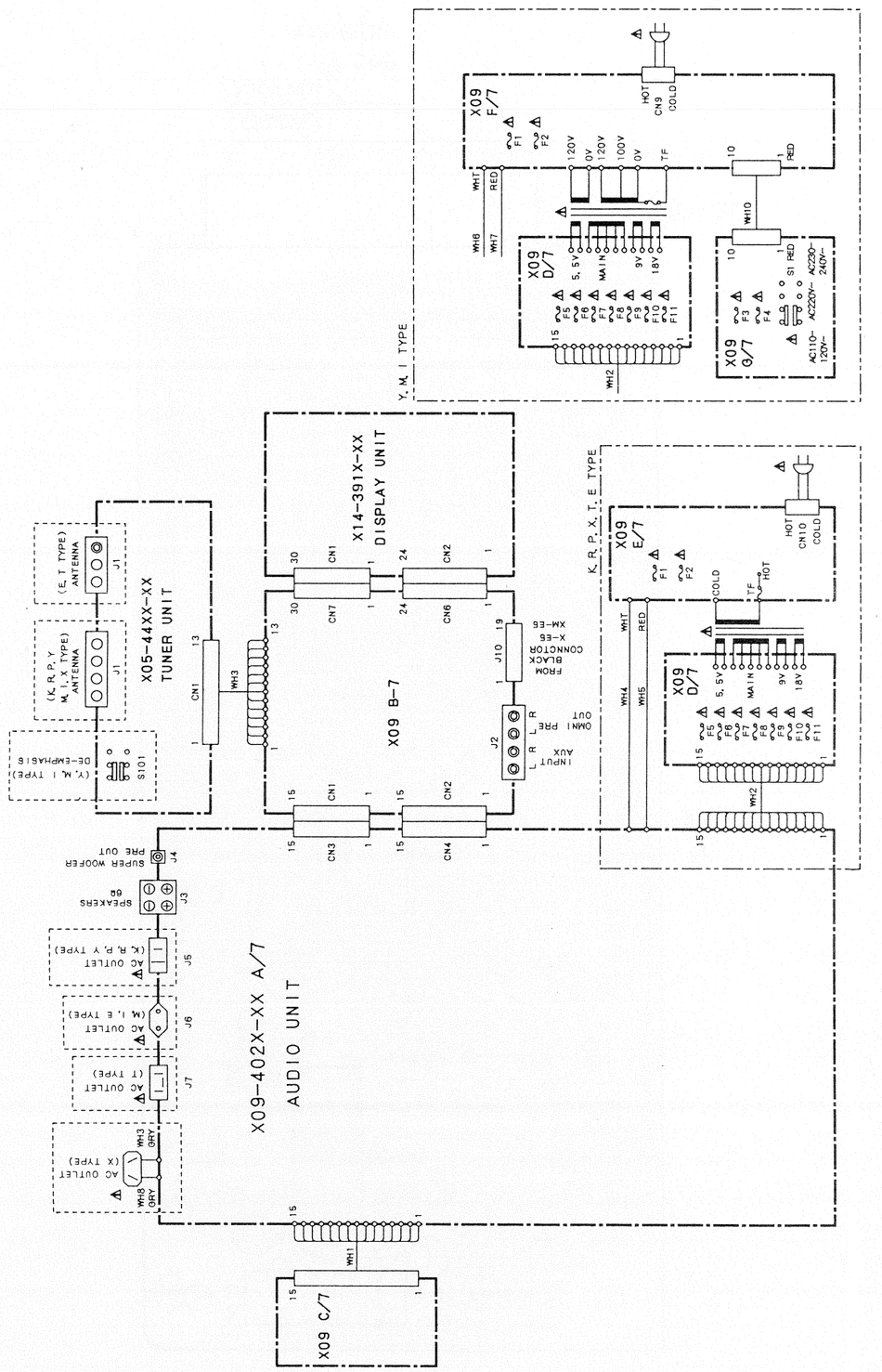
N.°	ÍTEM	AJUSTES DEE ENTRADA	AJUSTES DE SALIDA	AJUSTES DEL SINTONIZADOR	PUNTOS DE ALINEACIÓN	ALINEACIÓN PARA	FIG.
SECCIÓN DE FM A menos que se especifique otra cosa, los controles individuales deberán ajustarse de la forma siguiente: BAND: FM							
1	DISTORTIÓN (ESTÉREO)	(C) 98,0MHz 1kHz, ±68,25kHz des Selector: L o R 60dBμ(entrada de ANT)	(B)	AUTO 98,0MHz	IFT (W02-)	Distorsión mínima	

ADJUSTMENT



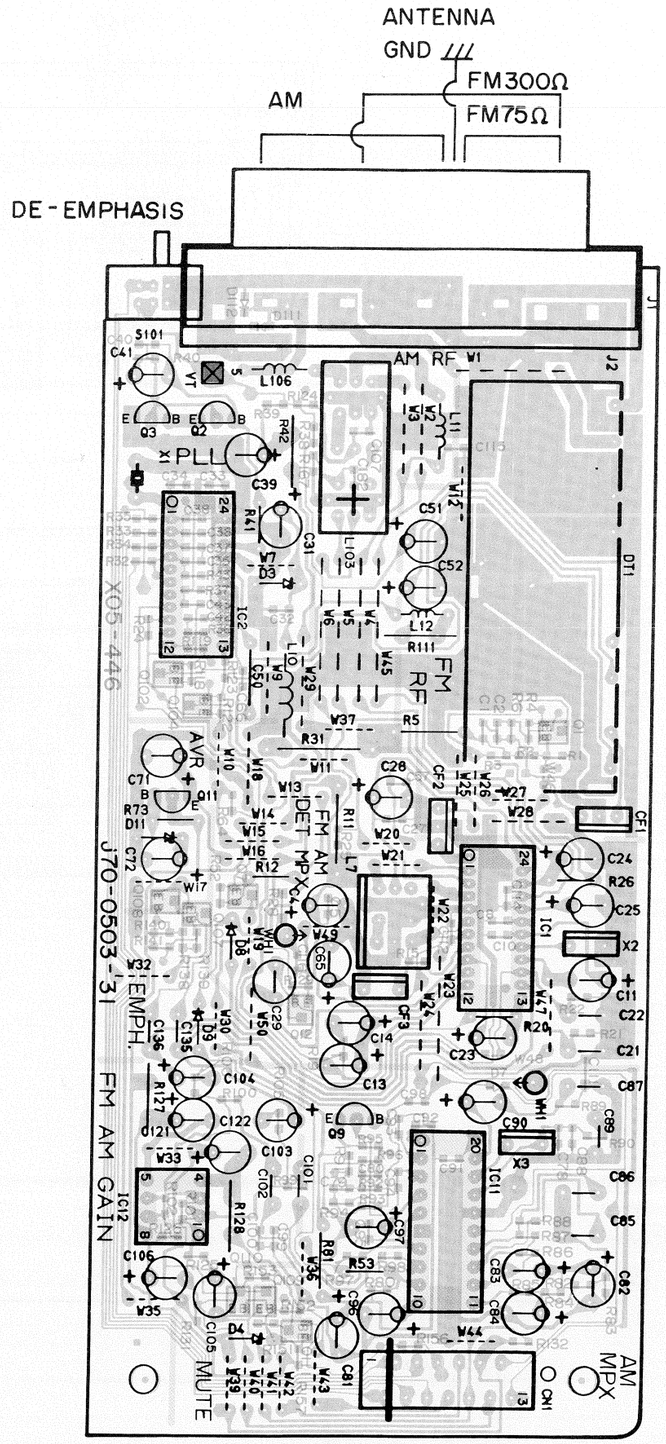


WIRING DIAGRAM



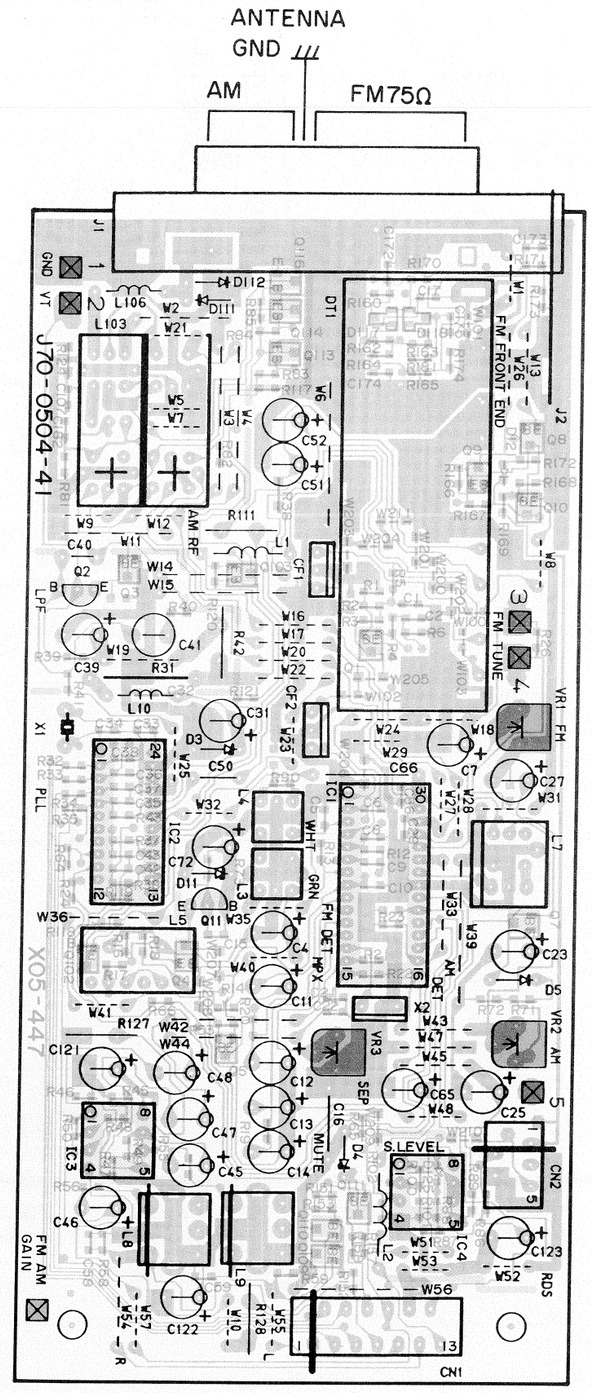
PC BOARD (Component side view)

Tuner unit (X05-4460-XX)



Refer to the schematic diagram for the values of resistors and capacitors.

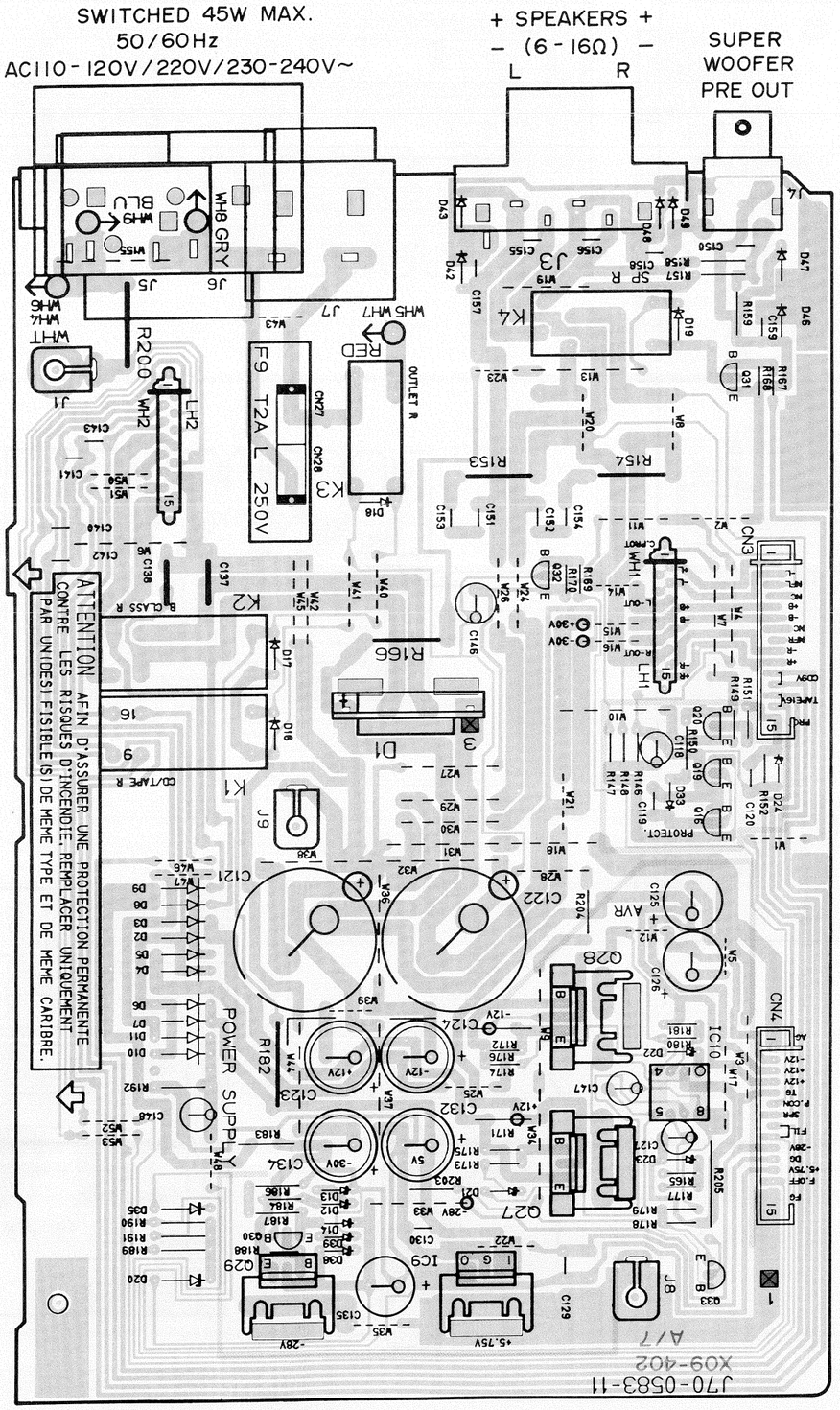
Tuner unit (X05-4472-70) T, E type

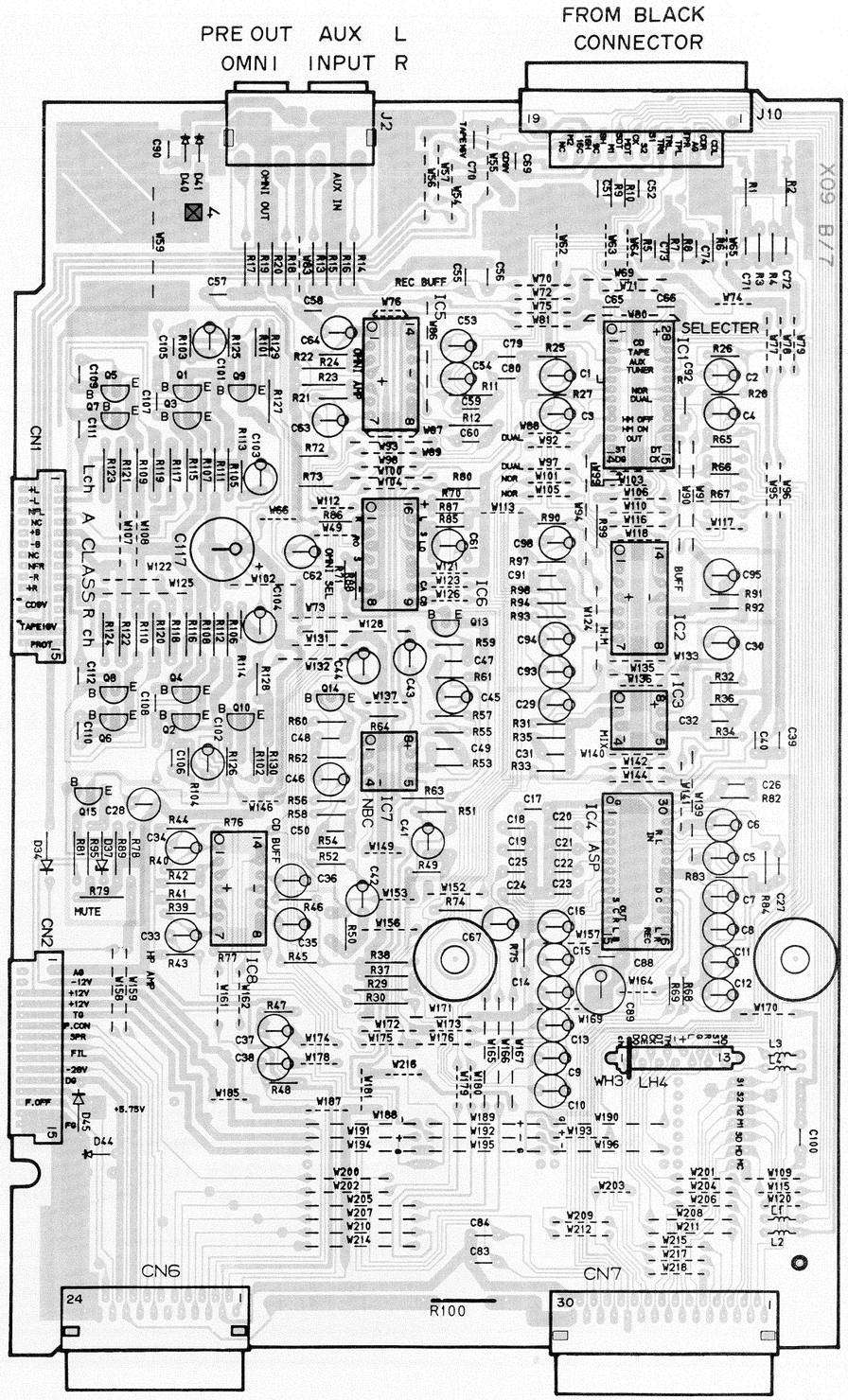


Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Component side view)

Audio unit (X09-402X-XX)

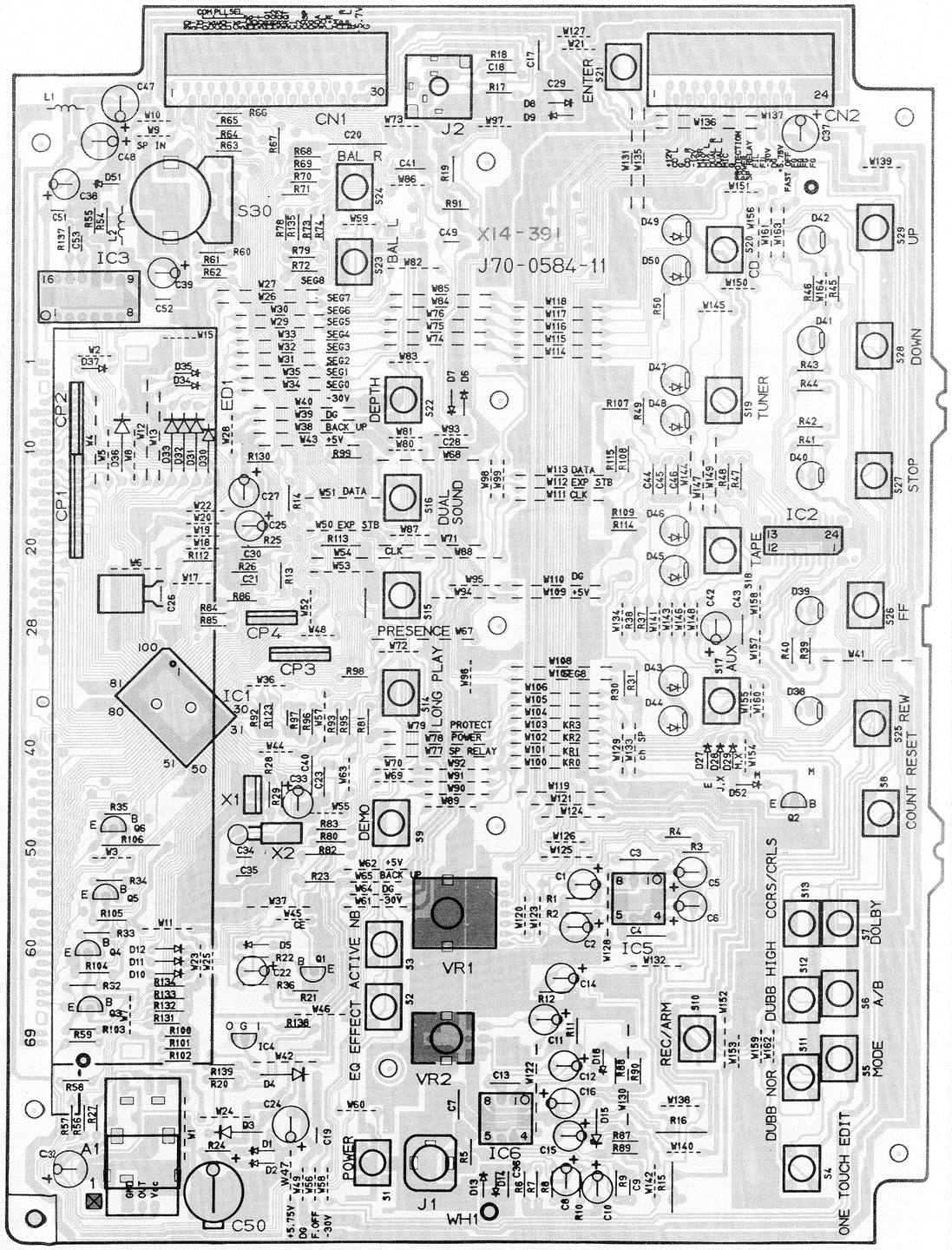


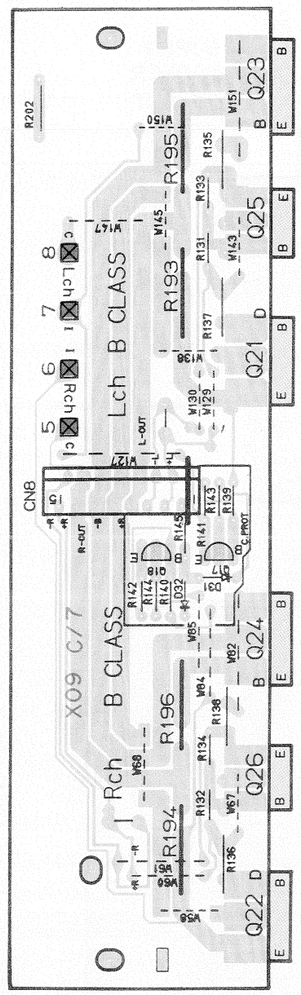


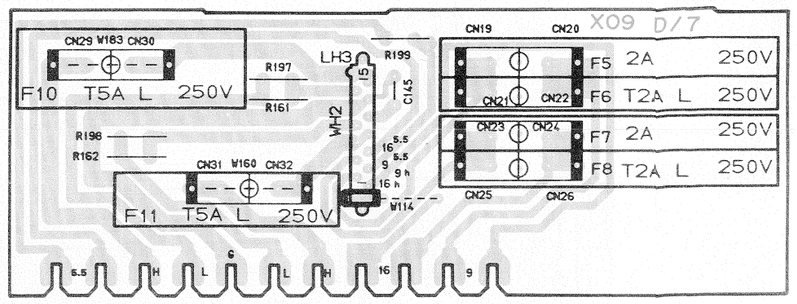
Refer to the schematic diagram for the values of resistors and capacitors.

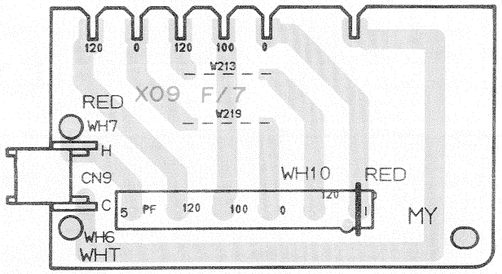
PC BOARD (Component side view)

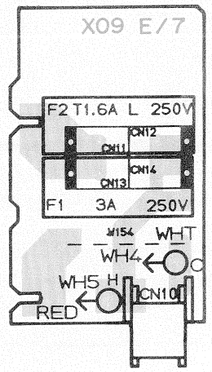
Display unit (X14-391X-XX)

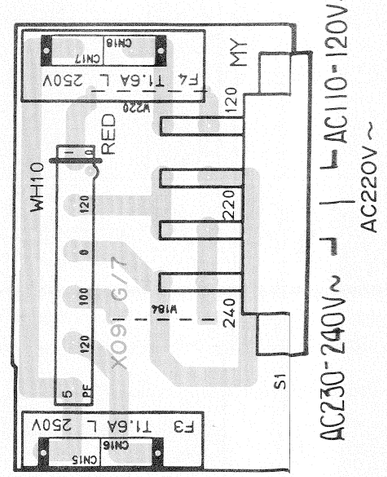






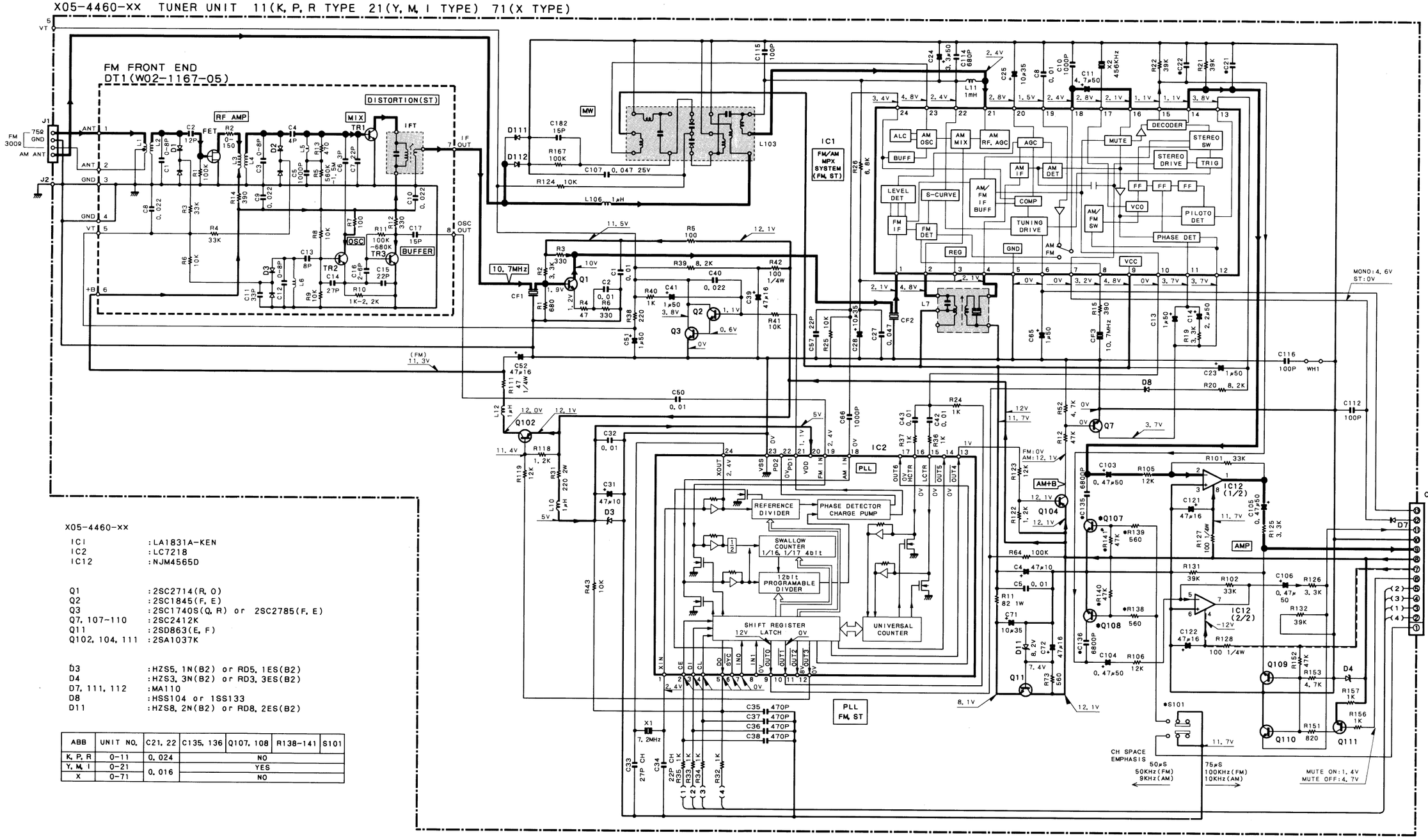






Refer to the schematic diagram for the values of resists and capacitors.

X05-4460-XX TUNER UNIT 11(K, P, R TYPE 21(Y, M, I TYPE) 71(X TYPE)



X05-4460-xx

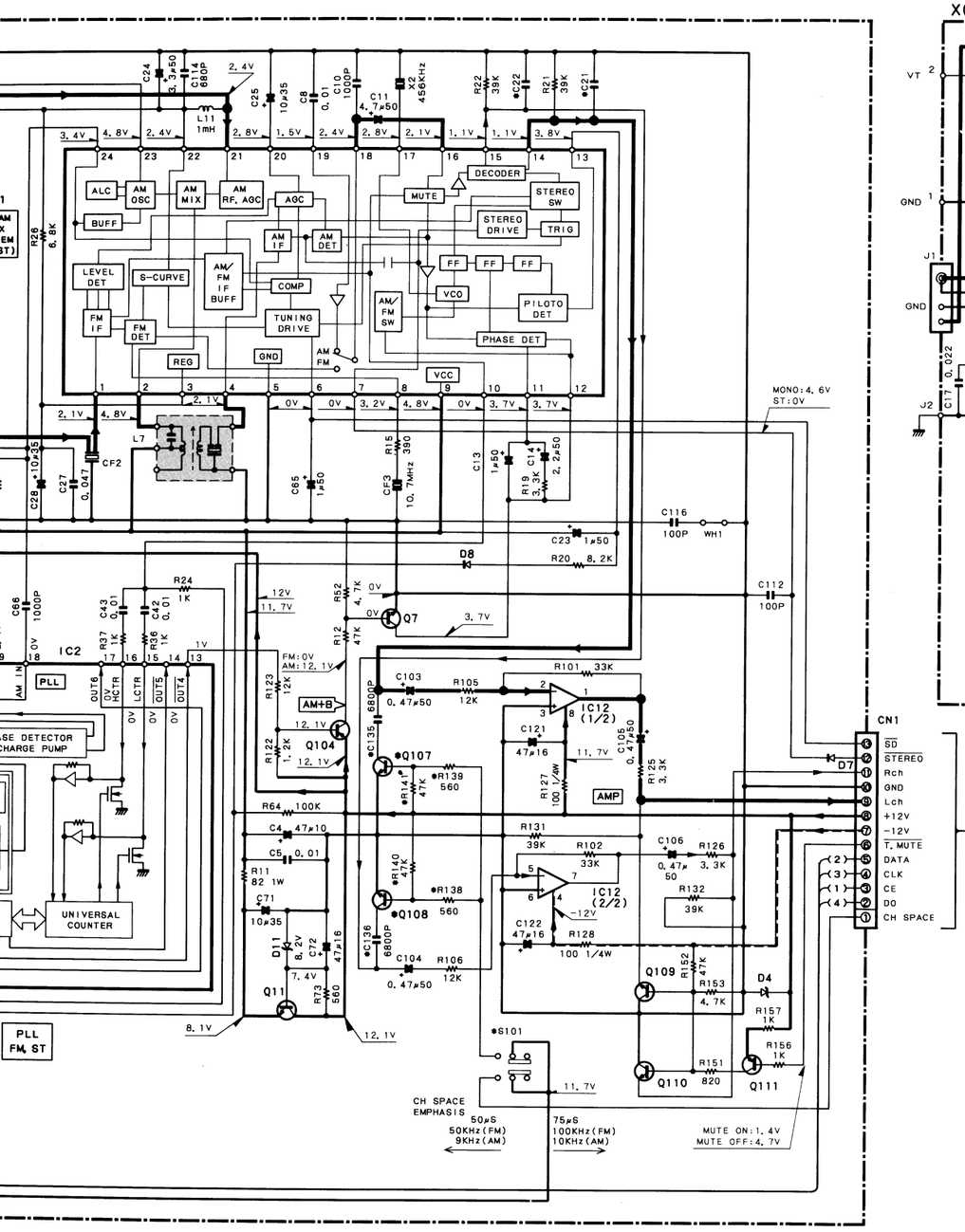
IC1	:LA1831A-KEN
IC2	:LC7218
IC12	:NJM4565D
Q1	:2SC2714(R, O)
Q2	:2SC1845(F, E)
Q3	:2SC1740S(Q, R) or 2SC2785(F, E)
Q7, 107~110	:2SC2412K
Q11	:2SD863(E, F)
Q102, 104, 111	:2SA1037K
D3	:HZS5, 1N(B2) or RD5, 1ES(B2)
D4	:HZS3, 3N(B2) or RD3, 3ES(B2)
D7, 111, 112	:MA110
D8	:HSS104 or 1SS133
D11	:HZS8, 2N(B2) or RD8, 2ES(B2)

ABB	UNIT NO.	C21, 22	C135, 136	Q107, 108	R138~141	S101
K, P, R	0~11	0.024	NO			
Y, M, I	0~21	0.016	YES			
X	0~71		NO			

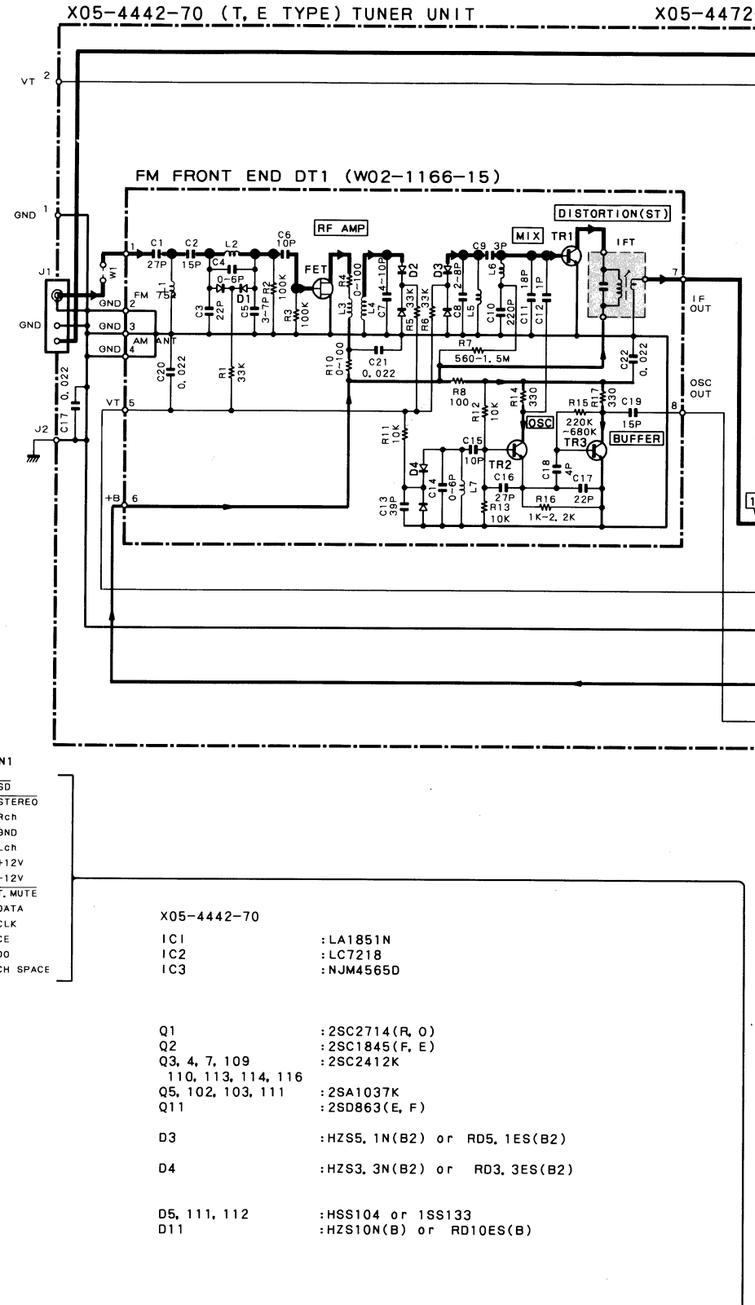
DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between individual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programmme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de measure individuels.
Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM (avec une force de signal de 60 dB à la borne ANT).

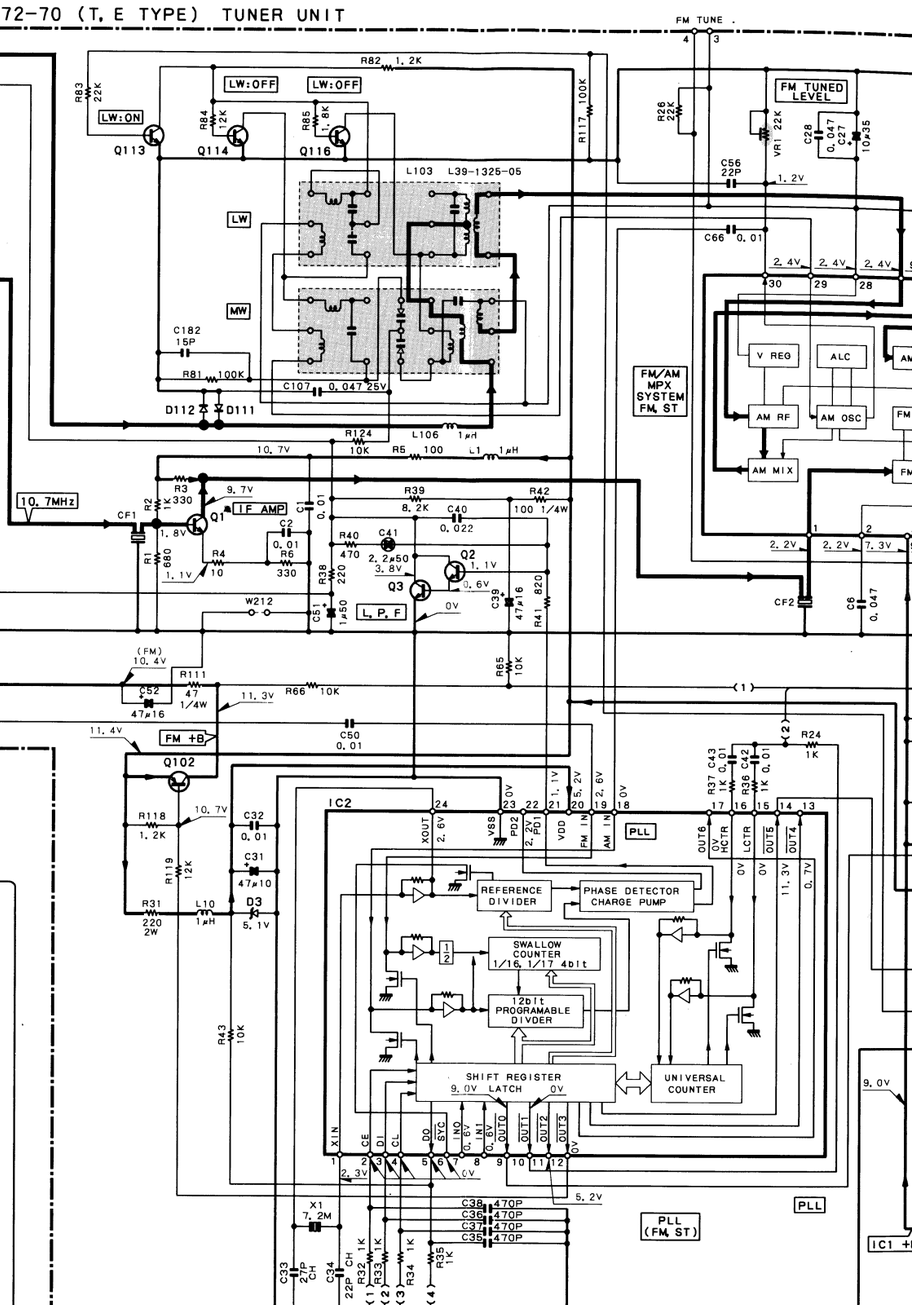
Die angegebene chohmigen Spa (mit einer Feldst Dabei schwanke chen einzelnen eingeklammerte eines MW-Signa schluß) gemess



X05-4442-70 (T, E TYPE) TUNER UNIT



X05-4472-70 (T, E TYPE) TUNER UNIT



X05-4442-70

IC1	:LA1851N
IC2	:LC7218
IC3	:NJM4565D
Q1	:2SC2714(R, O)
Q2	:2SC1845(F, E)
Q3, 4, 7, 109 110, 113, 114, 116	:2SC2412K
Q5, 102, 103, 111	:2SA1037K
Q11	:2SD863(E, F)
D3	:HZS5. 1N(B2) or RD5. 1ES(B2)
D4	:HZS3. 3N(B2) or RD3. 3ES(B2)
D5, 111, 112	:HSS104 or 1SS133
D11	:HZS10N(B) or RD10ES(B)

DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between individual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

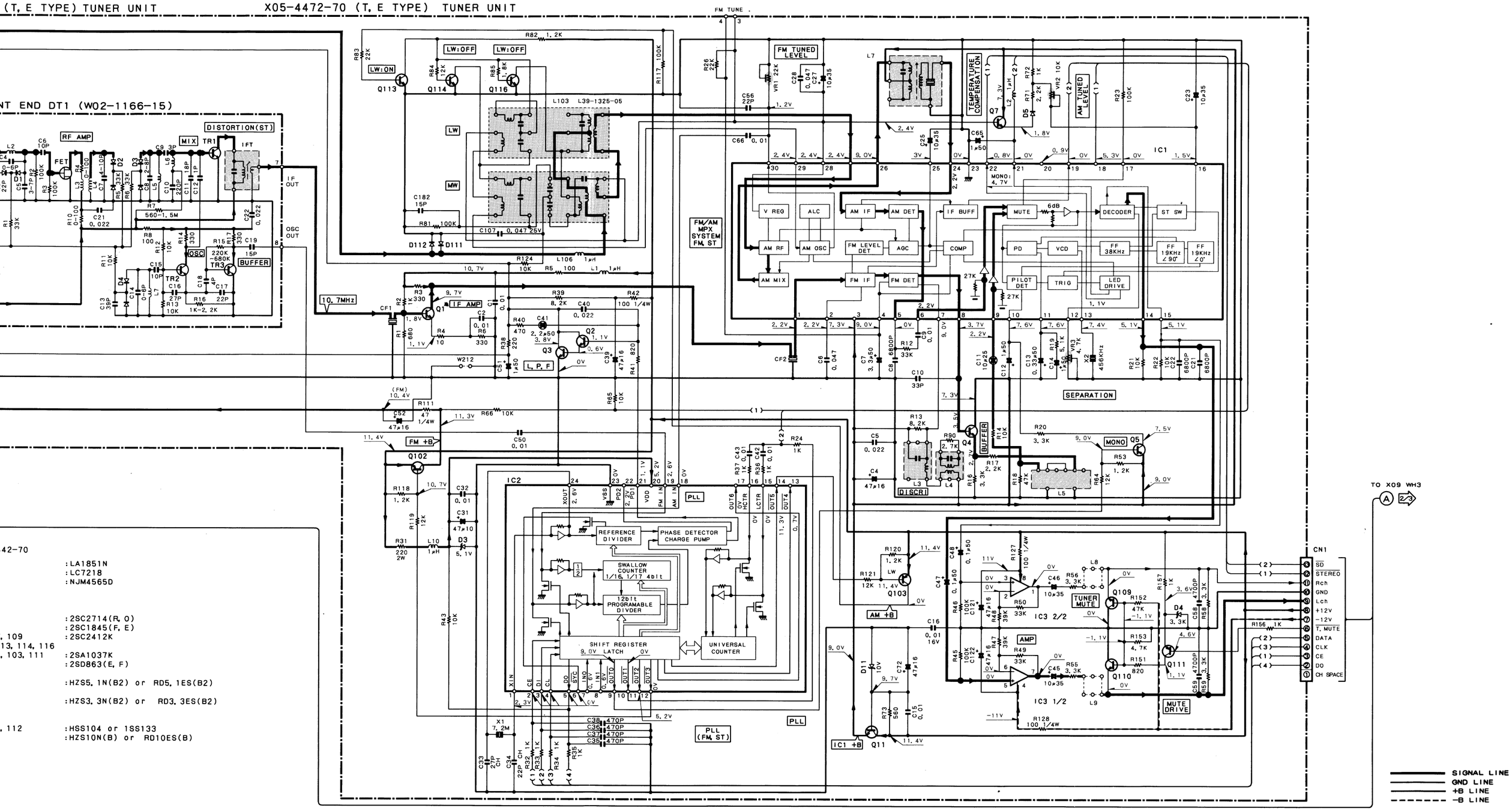
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programmme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de measure individuels.
Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM (avec une force de signal de 60 dB à la borne ANT).

Die angegebenen Gleichspannungswertre wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstäke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstäke von 60 dB am Antennenanschluß) gemessen.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

(T, E TYPE) TUNER UNIT

X05-4472-70 (T, E TYPE) TUNER UNIT



:42-70

	:LA1851N
	:LC7218
	:NJM4565D
	:2SC2714(R, O)
	:2SC1845(F, E)
, 109	:2SC2412K
13, 114, 116	
, 103, 111	:2SA1037K
	:2SD863(E, F)
	:HZS5. 1N(B2) or RD5. 1ES(B2)
	:HZS3. 3N(B2) or RD3. 3ES(B2)
, 112	:HSS104 or 1SS133
	:HZS10N(B) or RD10ES(B)

ebenen Gleichspannungswertre wurden mit einem ho- Spannungsmesser bei Empfang eines UKW-Signals eldstäke von 60 dB am Antennenanschluß) gemessen. vanken die Meßwerte aufgrund von Unterschieden zwis- lnen Instrumenten oder Geräten u. U. geringfügig. Die merten Gleichspannungswerte wurden bei Empfang Signals (mit einer Feldstäke von 60 dB am Antennenan- messen.

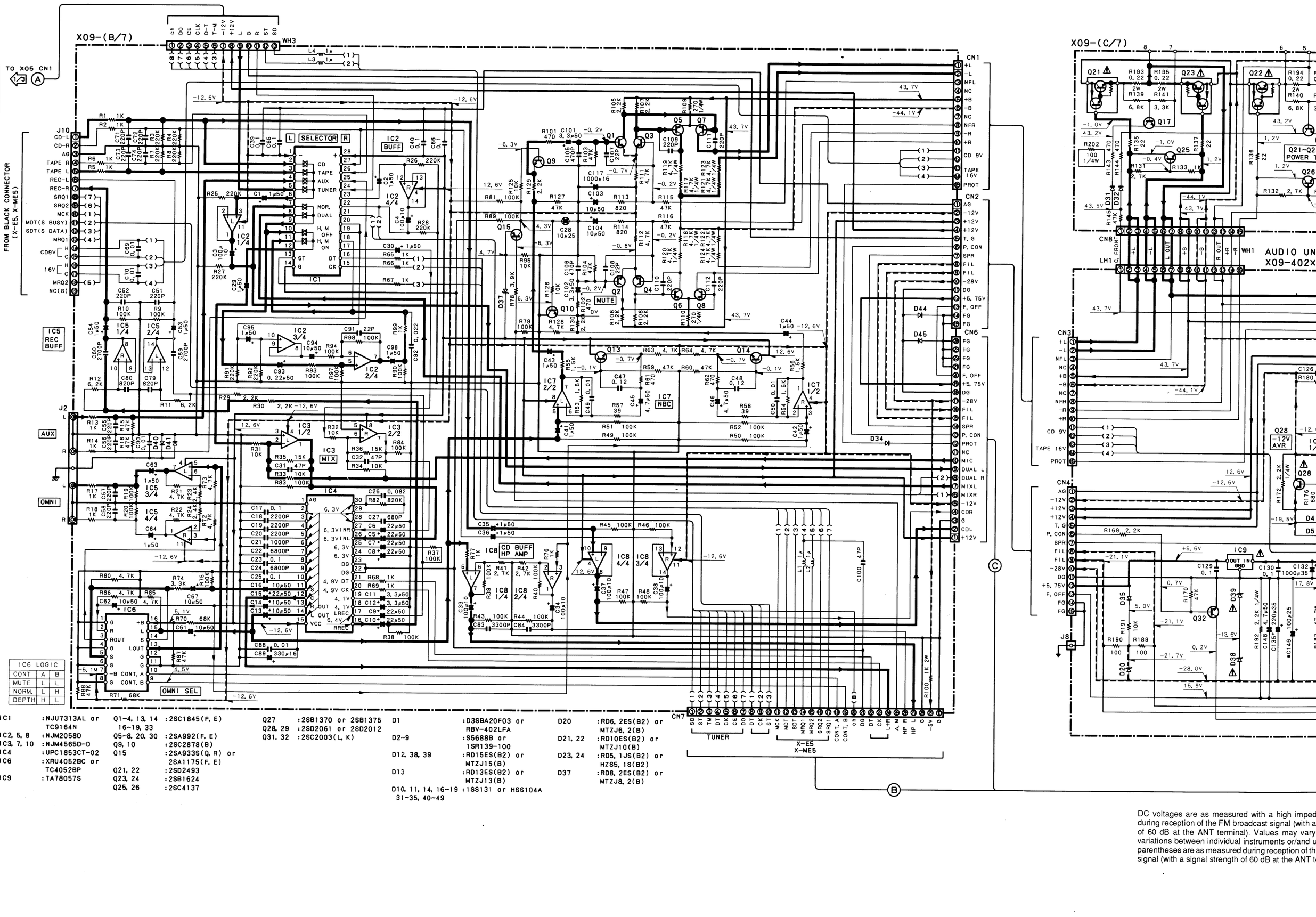
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

SIGNAL LINE
GND LINE
+B LINE
−B LINE

Y05-2910-11

A-E5/L

KENWOOD



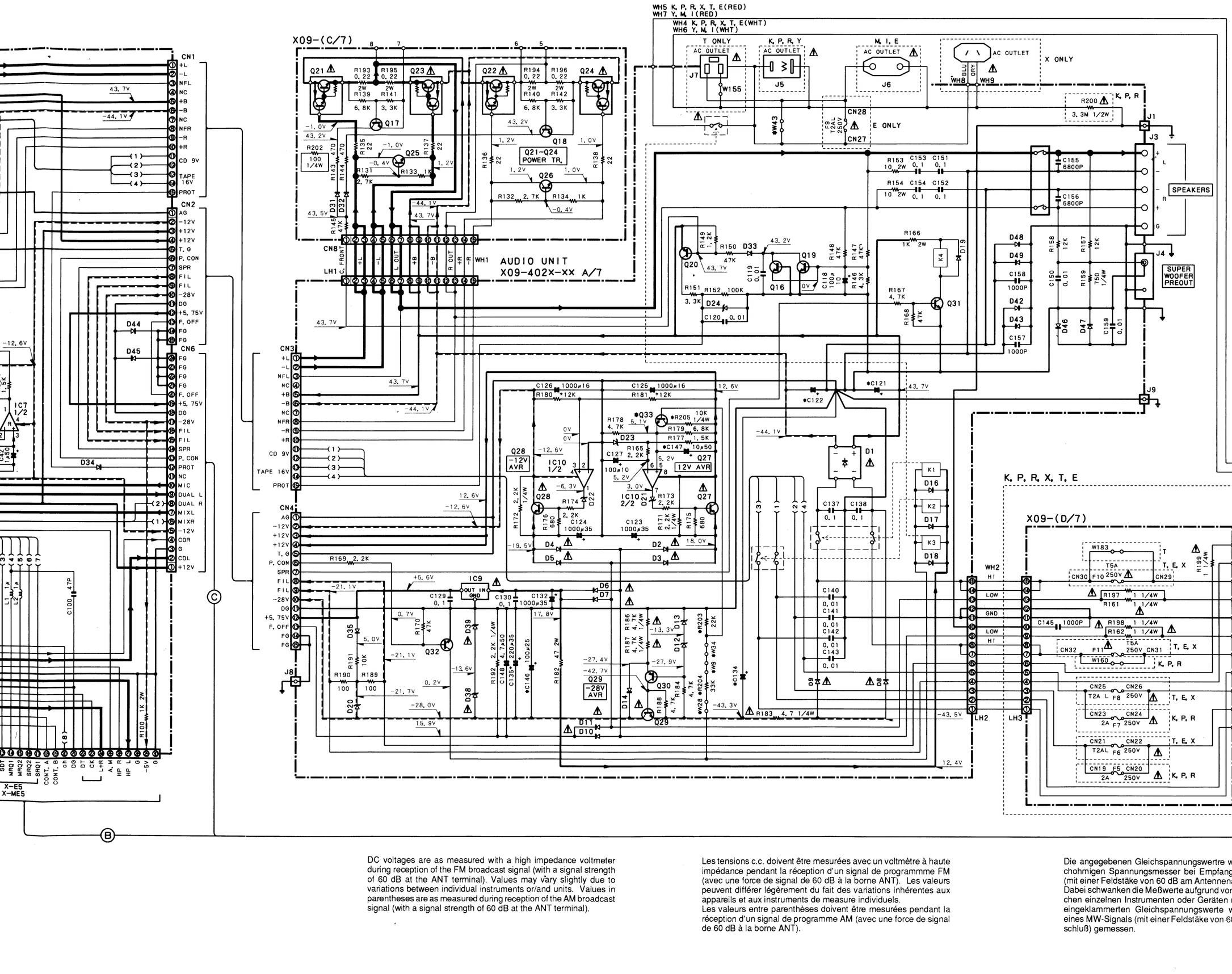
IC6 LOGIC		
CONT	A	B
MUTE	L	L
NORM.	L	H
DEPTH	H	L

IC1 :NJU7313AL or TC9164N
IC2, 5, 8 :NJM2058D
IC3, 7, 10 :NJM4565D-D
IC4 :UPC1853CT-02
IC6 :XRU4052BC or TC4052BP
IC9 :TA78057S

Q1-4, 13, 14, 16-19, 33 :2SC1845(F, E)
Q5-8, 20, 30 :2SA992(F, E)
Q9, 10 :2SC2878(B)
Q15 :2SA933S(Q, R) or 2SA1175(F, E)
Q21, 22 :2SD2493
Q23, 24 :2SB1624
Q25, 26 :2SC4137
Q27 :2SB1370 or 2SB1375
Q28, 29 :2SD2061 or 2SD2012
Q31, 32 :2SC2003(L, K)

D1 :D3SBA20F03 or RBV-402LFA
D2-9 :S5688B or 1SR139-100
D12, 38, 39 :RD15ES(B2) or MTZJ15(B)
D13 :RD13ES(B2) or MTZJ13(B)
D10, 11, 14, 16-19, 31-35, 40-49 :1SS131 or HSS104A
D20 :RD6.2ES(B2) or MTZJ6.2(B)
D21, 22 :RD10ES(B2) or MTZJ10(B)
D23, 24 :RD5.1JS(B2) or HZS5.1S(B2)
D37 :RD8.2ES(B2) or MTZJ8.2(B)

DC voltages are as measured with a high impedance vo
during reception of the FM broadcast signal (with a signal s
of 60 dB at the ANT terminal). Values may vary slightly
variations between individual instruments or/and units. Va
parentheses are as measured during reception of the AM br
signal (with a signal strength of 60 dB at the ANT terminal)

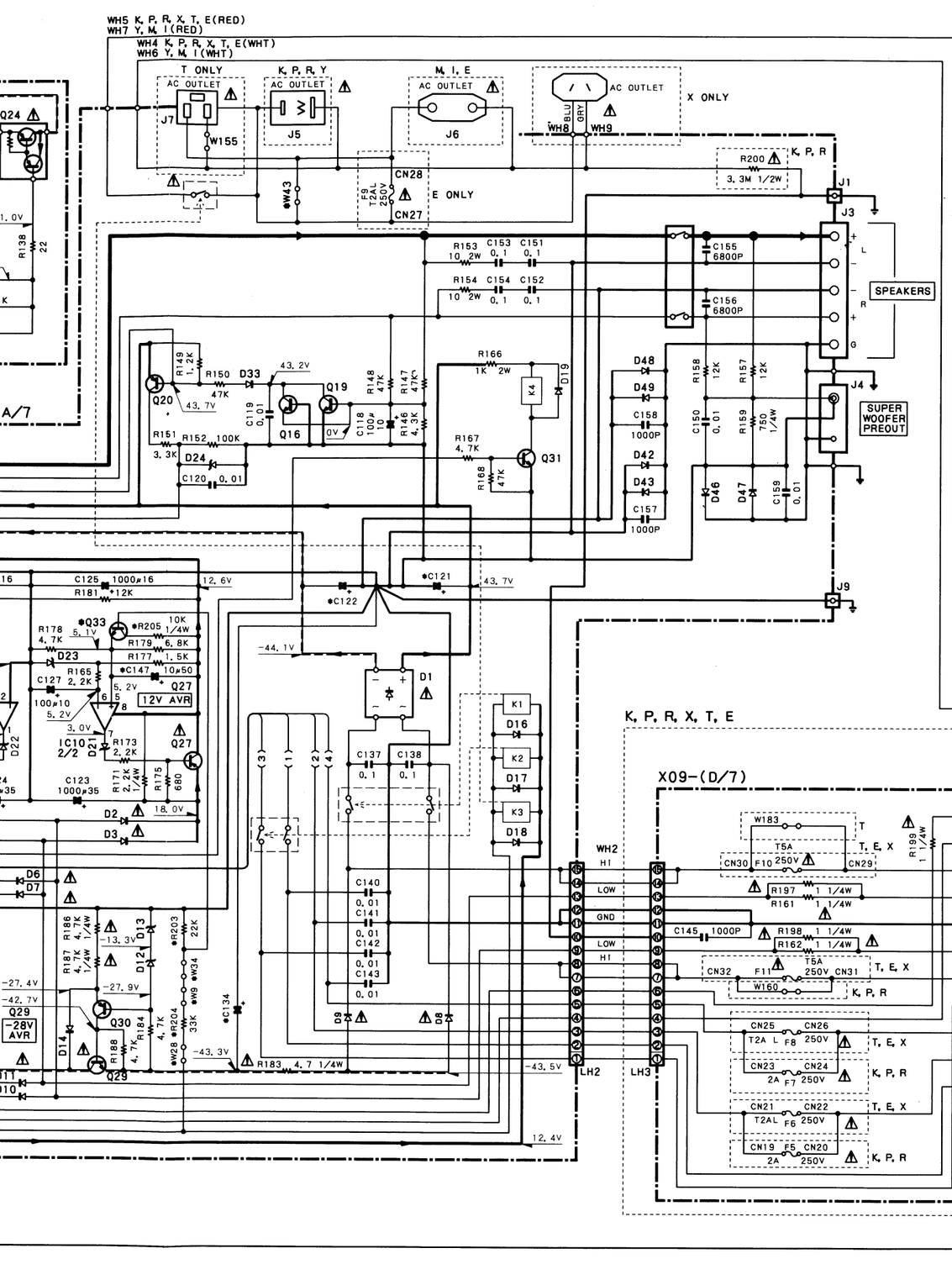


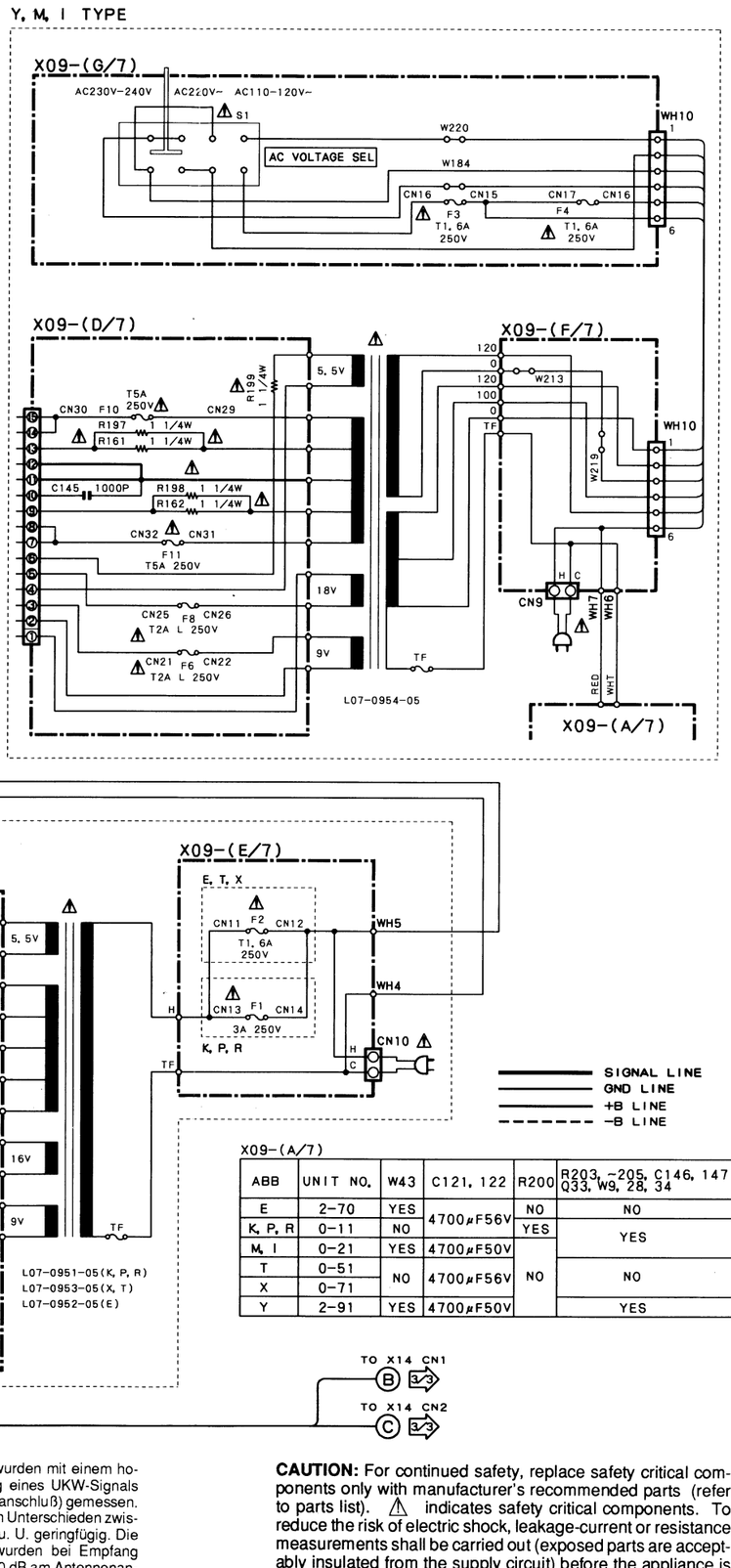
DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between individual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programmme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de measure individuels.
Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM (avec une force de signal de 60 dB à la borne ANT).

Die angegebenen Gleichspannungswertre wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstäke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstäke von 60 dB am Antennenanschluß) gemessen.

CAUTION: For
ponents only wit
to parts list). ⚠
reduce the risk o
measurements s
ably insulated fr
returned to the



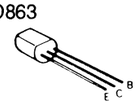


X09-(A/7)

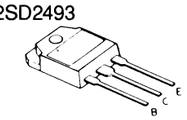
ABB	UNIT NO.	W43	C121, 122	R200	R203, -205, C146, 147 Q33, W9, 28, 34	C134
E	2-70	YES	4700µF56V	NO	NO	470µ63
K, P, R	0-11	NO		YES	YES	
M, I	0-21	YES	4700µF50V	NO		470µ50
T	0-51	NO	4700µF56V		NO	470µ63
X	0-71					
Y	2-91	YES	4700µF50V		YES	470µ50

SIGNAL LINE
GND LINE
+B LINE
-B LINE

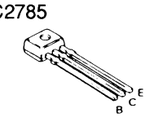
2SA992
2SC1845
2SC2003
2SC2878
2SD863



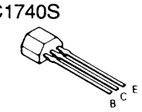
2SB1624
2SD2493



2SA1175
2SC2785



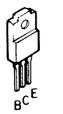
2SA933S
2SC1740S



2SA1037K
2SC2412K
2SC2714

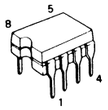
2SC4137

2SB1370
2SD2061

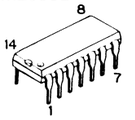


2SB1375
2SD2012

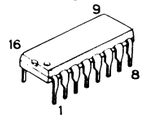
NJM4565D
NJM4565D-D



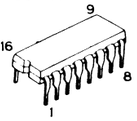
NJM2058D



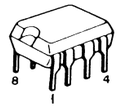
XR-1091ECP
XRU4052BC



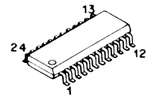
TC4052BP



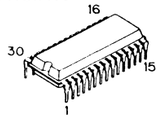
XRA15218-DX



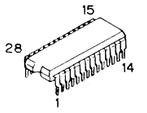
M66310FP



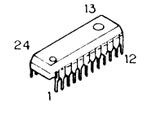
LA1851N



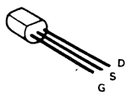
TC9164N



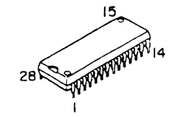
LC7218



2SC4038



NJU7313AL



Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programmme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de measure individuels.
Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM (avec une force de signal de 60 dB à la borne ANT).

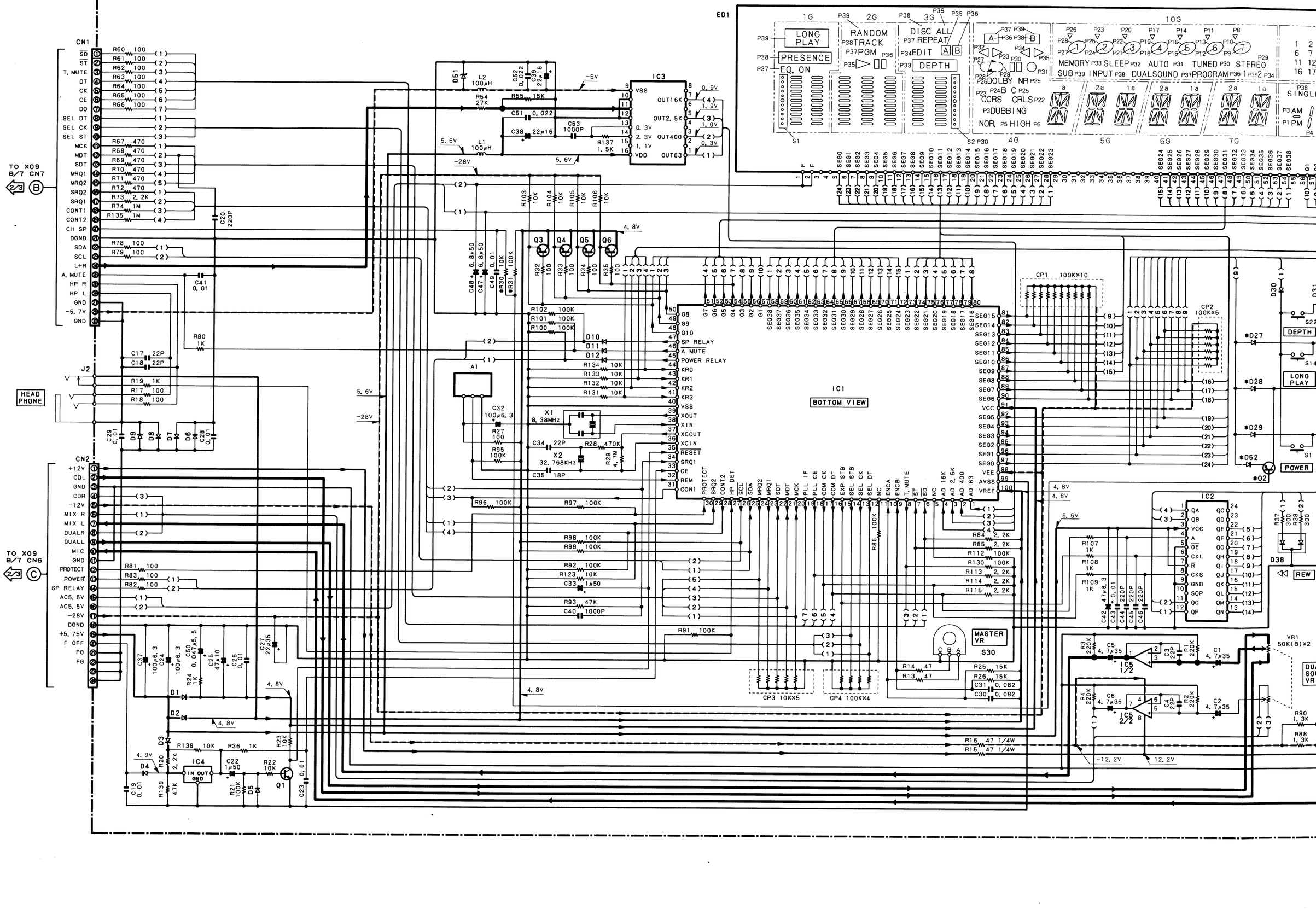
Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstäke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstäke von 60 dB am Antennenanschluß) gemessen.

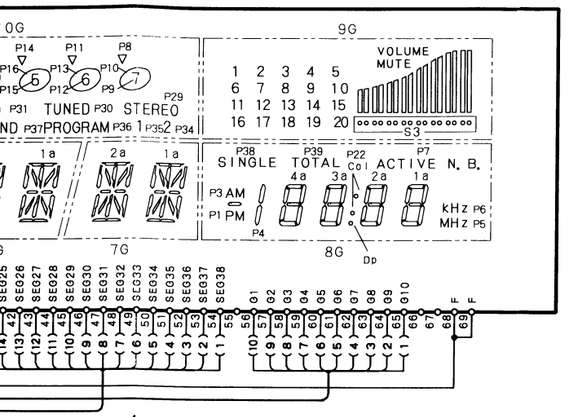
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

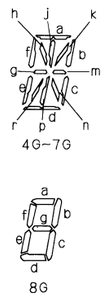
Y05-2910-11

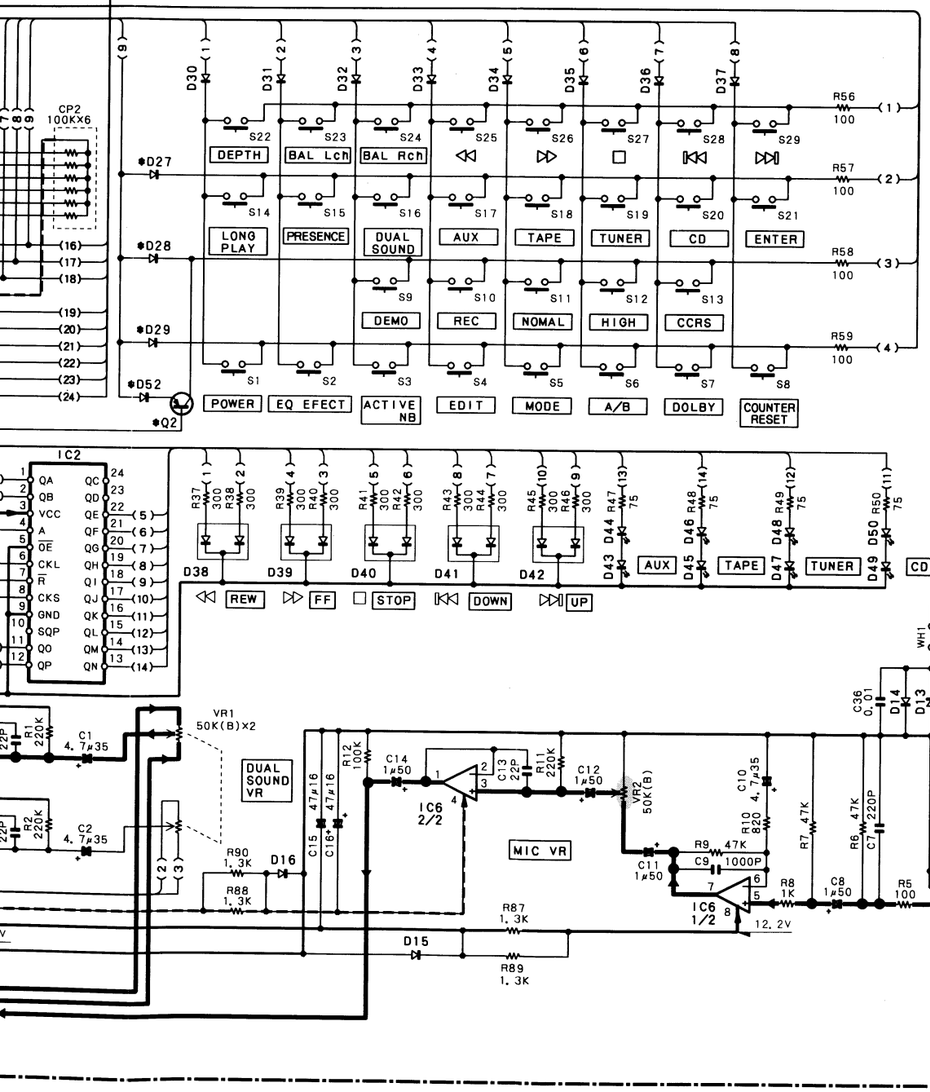
A-E5/L
KENWOOD

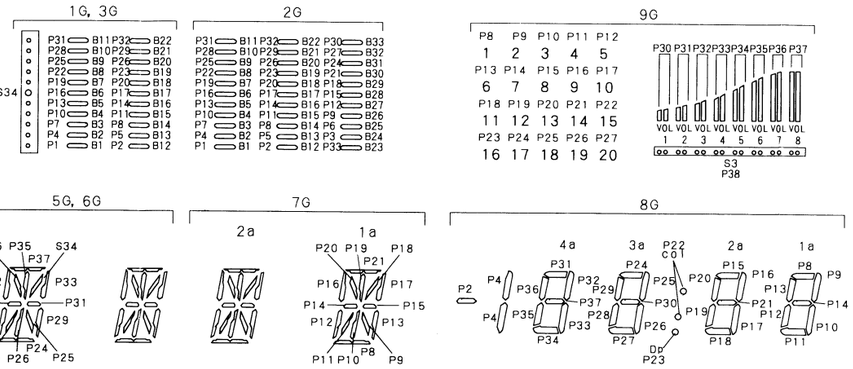
X14-391X-XX DISPLAY UNIT











IC1	:M38197MA-074FP
IC2	:M66310FP
IC3	:XR-1091ECP
IC4	:S-806E-Z
IC5, 6	:NJM4565D-D or XRA15218-DX
ED1	:10-BT-144GK
Q1, 3-6	:2SC4038(Q, R)
Q2	:2SA933S(Q, R) or 2SA1175(F, E)
D1~14 27~37, 52	:HSS104A or 1SS131
D15, 16	:MTZJ3, 9(B) or RD3, 9ES(B2)
D38~42	:B30-2463-05
D43~50	:B30-2462-05
D51	:MTZJ5, 1(B) or RD5, 1ES(B2)

ABB.	Ref. NO / UNIT	D27	D28	D29	D52 Q2 R30, 31
K, P, R	0-11	NO	NO	NO	NO
Y, M, I	0-21			YES	YES
X	0-71		YES		NO
T, E	2-70	YES	NO	NO	

DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between individual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programmme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de measure individuels.
Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM (avec une force de signal de 60 dB à la borne ANT).

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstäke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstäke von 60 dB am Antennenanschluß) gemessen.

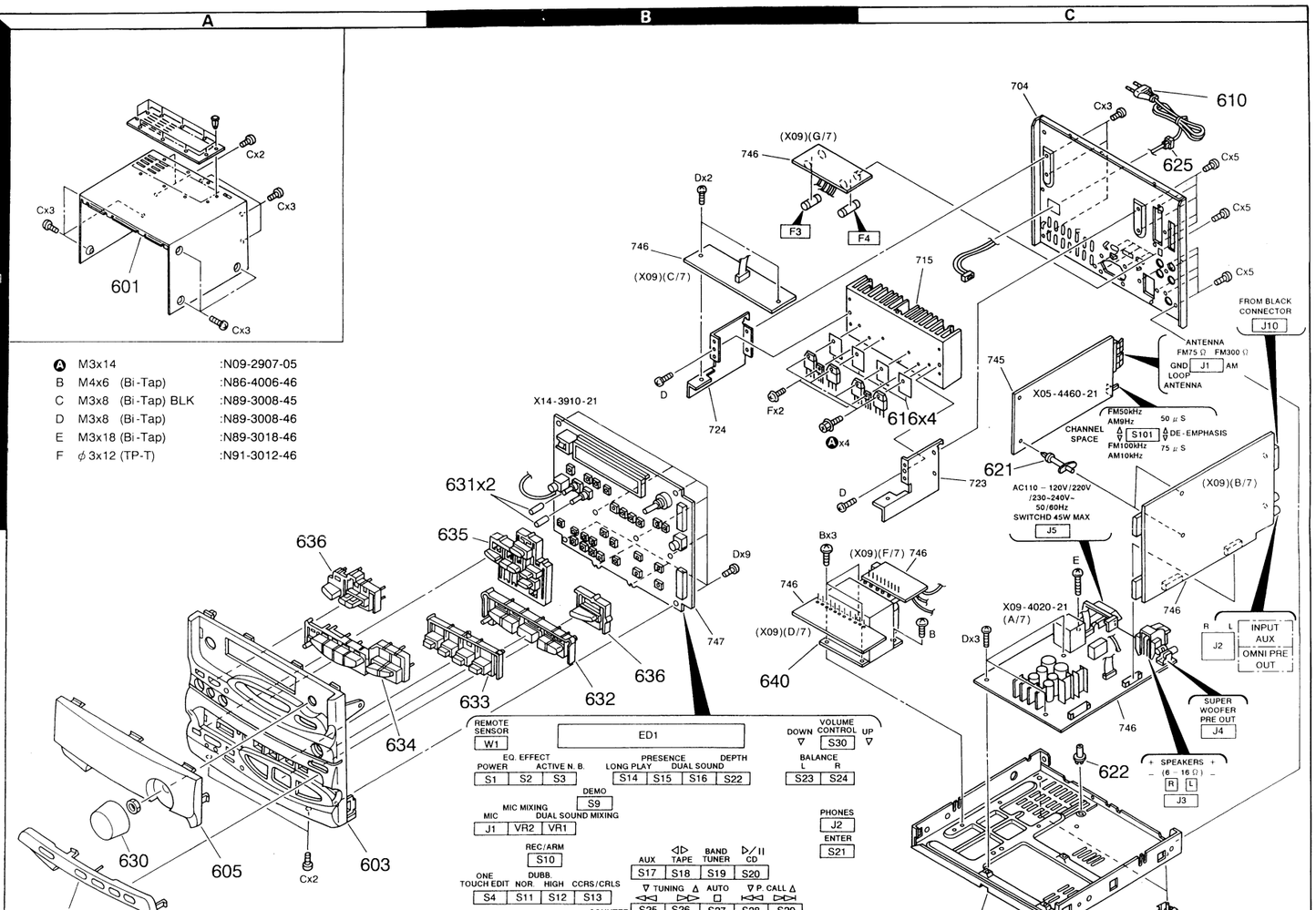
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

SIGNAL LINE
GND LINE
+B LINE
-B LINE

Y05-2910-11

A-E5/L

KENWOOD



Parts with the exploded numbers larger than 700 are not supplied.

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht gellefert.

No. 1

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
A-E5/L (SINGAPORE MADE)						
601	1A	*	A01-3140-11	METALLIC CABINET	KRPYX	
601	1A	*	A01-3140-11	METALLIC CABINET	TE	
601	1A	*	A01-3204-11	METALLIC CABINET	M	
603	2A	*	A60-0589-11	PANEL		
605	2A	*	B10-2030-02	FRONT GLASS	KRPYMX	
605	2A	*	B10-2037-02	FRONT GLASS	TE	
606	2A	*	B10-2031-03	FRONT GLASS		
-			B46-0310-03	WARRANTY CARD	TE	
-		*	B58-0968-04	CAUTION CARD	Y	
⚠ 610	1C		E30-2592-15	AC POWER CORD	ME	
⚠ 610	1C		E30-2605-05	AC POWER CORD	Y	
⚠ 610	1C		E30-2650-05	AC POWER CORD	KRP	
⚠ 610	1C		E30-2717-05	AC POWER CORD	X	
⚠ 610	1C		E30-2721-05	AC POWER CORD	T	
⚠ J5	2C		E03-0141-05	AC OUTLET	X	
616	1B		F20-1297-05	INSULATING BOARD		
		*	H50-1096-04	ITEM CARTON CASE	RPYX	
		*	H50-1097-04	ITEM CARTON CASE	E	
		*	H50-1115-04	ITEM CARTON CASE	T	
		*	H50-1279-04	ITEM CARTON CASE	M	
-		*	H10-5782-02	POLYSTYRENE FOAMED FIXTURE (L)	KRPYMX	
-		*	H10-5782-02	POLYSTYRENE FOAMED FIXTURE (L)	E	
-		*	H10-5783-02	POLYSTYRENE FOAMED FIXTURE (R)	KRPYMX	
-		*	H10-5783-02	POLYSTYRENE FOAMED FIXTURE (R)	E	
-		*	H10-5804-02	POLYSTYRENE FOAMED FIXTURE (L)	T	
-		*	H10-5805-02	POLYSTYRENE FOAMED FIXTURE (R)	T	
-		*	H13-0176-14	CARTON BOARD	X	
-			H25-0672-04	PROTECTION BAG		
620	2C		J02-0370-05	FOOT		
621	1C		J19-3328-15	UNIT HOLDER		
622	2C		J19-3657-14	UNIT HOLDER		
⚠ 625	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
630	2A		K29-4215-04	KNOB (VOLUME CONTROL)		
631	1B		K29-5810-04	KNOB (MIC/DUAL SOUND)		
632	2B	*	K29-5935-02	KNOB (TUNING/AUTO/P.CALL)		
633	2B	*	K29-5936-03	KNOB (AUX/TAPE/TUNER/CD)		
634	2A	*	K29-5937-12	KNOB (PRESENCE/BALANCE)		
635	2B	*	K29-5938-02	KNOB (DUBB/CCRS/DOLBY)		
636	2A,2B	*	K29-5939-12	KNOB (POWER/EQ/ENTER)		
⚠ 640	2B	*	L07-0951-05	POWER TRANSFORMER	KRP	
⚠ 640	2B	*	L07-0952-05	POWER TRANSFORMER	E	
⚠ 640	2B	*	L07-0953-05	POWER TRANSFORMER	XT	
⚠ 640	2B	*	L07-0954-05	POWER TRANSFORMER	YM	
A	1B		N09-2907-05	SEMS (TAPTITE SCREW)(3X14)		
B	2B,2C		N86-4006-46	BINDING HEAD TAPTITE SCREW		
C	1A,1C		N89-3008-45	BINDING HEAD TAPTITE SCREW		
D	1B,2B		N89-3008-46	BINDING HEAD TAPTITE SCREW		
E	2C		N89-3018-46	BINDING HEAD TAPTITE SCREW		
F	1B		N91-3012-46	TP HEAD TAPPING SCREW		

L: Scandinavia **K**: USA **P**: Canada **R**: Mexico
Y: PX (Far East, Hawaii) **T**: England **E**: Europe **G**: Germany
Y: AAFES (Europe) **X**: Australia **M**: Other Areas ⚠ indicates safety critical components.

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht gellefert.

No. 2

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
A-E5/L (MALAYSIA MADE)						
601	1A	*	A01-3140-11	METALLIC CABINET	KRPYIX	
601	1A	*	A01-3140-11	METALLIC CABINET	TE	
601	1A	*	A01-3204-11	METALLIC CABINET	M	
603	2A	*	A60-0589-11	PANEL		
605	2A	*	B10-2030-02	FRONT GLASS	KRPYMI	
605	2A	*	B10-2030-02	FRONT GLASS	X	
605	2A	*	B10-2037-02	FRONT GLASS	TE	
606	2A	*	B10-2031-03	FRONT GLASS		
-			B46-0310-03	WARRANTY CARD	TE	
-		*	B58-0968-04	CAUTION CARD	Y	
⚠ 610	1C		E30-2592-15	AC POWER CORD	MIE	
⚠ 610	1C		E30-2605-05	AC POWER CORD	Y	
⚠ 610	1C		E30-2650-05	AC POWER CORD	KRP	
⚠ 610	1C		E30-2717-05	AC POWER CORD	X	
⚠ 610	1C		E30-2721-05	AC POWER CORD	T	
⚠ J5	2C		E03-0141-05	AC OUTLET	X	
616	1B		F20-1297-05	INSULATING BOARD		
		*	H50-1098-04	ITEM CARTON CASE	KRPYX	
		*	H50-1099-04	ITEM CARTON CASE	E	
		*	H50-1117-04	ITEM CARTON CASE	T	
		*	H50-1280-04	ITEM CARTON CASE	M	
		*	H50-1281-04	ITEM CARTON CASE	I	
-		*	H10-5784-02	POLYSTYRENE FOAMED FIXTURE (L)	KRPYMI	
-		*	H10-5784-02	POLYSTYRENE FOAMED FIXTURE (L)	XE	
-		*	H10-5785-02	POLYSTYRENE FOAMED FIXTURE (R)	KRPYMI	
-		*	H10-5785-02	POLYSTYRENE FOAMED FIXTURE (R)	XE	
-		*	H10-5881-02	POLYSTYRENE FOAMED FIXTURE (L)	T	
-		*	H10-5882-02	POLYSTYRENE FOAMED FIXTURE (R)	T	
-		*	H13-0176-14	CARTON BOARD	X	
-			H25-0672-04	PROTECTION BAG		
620	2C		J02-0370-05	FOOT		
621	1C		J19-3328-15	UNIT HOLDER		
622	2C		J19-3657-14	UNIT HOLDER		
⚠ 625	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
630	2A		K29-4215-04	KNOB (VOLUME CONTROL)		
631	1B		K29-5810-04	KNOB (MIC/DUAL SOUND)		
632	2B	*	K29-5935-02	KNOB (TUNING/AUTO/P.CALL)		
633	2B	*	K29-5936-03	KNOB (AUX/TAPE/TUNER/CD)		
634	2A	*	K29-5937-12	KNOB (PRESENCE/BALANCE)		
635	2B	*	K29-5938-02	KNOB (DUBB/CCRS/DOLBY)		
636	2A,2B	*	K29-5939-12	KNOB (POWER/EQ/ENTER)		
⚠ 640	2B	*	L07-0951-05	POWER TRANSFORMER	KRP	
⚠ 640	2B	*	L07-0952-05	POWER TRANSFORMER	E	
⚠ 640	2B	*	L07-0953-05	POWER TRANSFORMER	XT	
⚠ 640	2B	*	L07-0954-05	POWER TRANSFORMER	YMI	
A	1B		N09-2907-05	SEMS (TAPTITE SCREW)(3X14)		
B	2B,2C		N86-4006-46	BINDING HEAD TAPTITE SCREW		
C	1A,1C		N89-3008-45	BINDING HEAD TAPTITE SCREW		
D	1B,2B		N89-3008-46	BINDING HEAD TAPTITE SCREW		

L: Scandinavia **K**: USA **P**: Canada **R**: Mexico
Y: PX (Far East, Hawaii) **T**: England **E**: Europe **G**: Germany
Y: AAFES (Europe) **X**: Australia **M**: Other Areas ⚠ indicates safety critical components.

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht gellefert.

No. 3

Ref. No.	Address	New	Parts No.	Description	Desti-	Re-

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht gellefert.

No. 4

Ref. No.	Address	New Parts	Parts No.	Description	Destination	Remarks

L: Scandinavia
Y: PX (Far East, Hawaii)
Y: AAFES (Europe)
K: USA
T: England
X: Australia
P: Canada
E: Europe
M: Other Areas
R: Mexico
G: Germany
⚠ indicates safety critical components.

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Telle ohne Parts No. werden nicht geliefert.

No. 3

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
E	2C		N89-3018-46	BINDING HEAD TAPTITE SCREW		
F	1B		N91-3012-46	TP HEAD TAPPING SCREW		
TUNER UNIT (X05-4460-XX)						
C1 ,2			CK73FB1H103K	CHIP C 0.010UF K		
C4			CE04LW1A470M	ELECTRO 47UF 10WV		
C5			CK73FB1H103K	CHIP C 0.010UF K		
C8			CK73FB1H103K	CHIP C 0.010UF K		
C10			CK73FB1H102K	CHIP C 1000PF K		
C11			CE04LW1H4R7M	ELECTRO 4.7UF 50WV		
C13			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C14			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C21 ,22			CQ92FM1H163J	MYLAR 0.016UF J	YMIX	
C21 ,22			CQ92FM1H243J	MYLAR 0.024UF J	KRP	
C23			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C24			CE04LW1H3R3M	ELECTRO 3.3UF 50WV		
C25			CE04LW1V100M	ELECTRO 10UF 35WV		
C27			CK73FB1E473K	CHIP C 0.047UF K		
C28			CE04LW1V100M	ELECTRO 10UF 35WV		
C31			CE04LW1A470M	ELECTRO 47UF 10WV		
C32			CK73FB1H103K	CHIP C 0.010UF K		
C33			CC73FCH1H270J	CHIP C 27PF J		
C34			CC73FCH1H220J	CHIP C 22PF J		
C35 -38			CK73FB1H471K	CHIP C 470PF K		
C39			CE04LW1C470M	ELECTRO 47UF 16WV		
C40			CQ92FM1H223J	MYLAR 0.022UF J		
C41			CE04HW1H2R2M	NP-ELEC 2.2UF 50WV		
C42 ,43			CK73FB1H103K	CHIP C 0.010UF K		
C45 ,46			CE04LW1V100M	ELECTRO 10UF 35WV		
C47 ,48			CE04LW1H0R1M	ELECTRO 0.1UF 50WV		
C50			C91-0769-05	CERAMIC 0.01UF K		
C51			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C52			CE04LW1C470M	ELECTRO 47UF 16WV		
C56			CC73FCH1H220J	CHIP C 22PF J		
C58 ,59			CK73FB1H472K	CHIP C 4700PF K		
C65			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C66			C91-0769-05	CERAMIC 0.01UF K		
C72			CE04LW1C470M	ELECTRO 47UF 16WV		
C107			CK73FB1E473K	CHIP C 0.047UF K		
C121,122			CE04LW1C470M	ELECTRO 47UF 16WV		
C182			CC73FSL1H150J	CHIP C 15PF J		
J1			E20-0321-05	LOCK TERMINAL BOARD(3P)ANTENNA		
CF1 ,2			L72-0536-05	CERAMIC FILTER		
L1 ,2			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
L3			L30-0496-05	FM IFT		
L4			L30-0497-05	FM IFT		
L5			L79-0125-05	LC FILTER		
L7			L30-0467-05	AM IFT		
L8 ,9			L79-0790-05	LC FILTER		
L10			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
L103			L39-1325-05	COMBINATION COIL		
L106			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
X1			L77-1122-05	CRYSTAL RESONATOR(7.2MHz)		
X2			L78-0295-05	RESONATOR (456kHz)		
R31			RS14KB3D221J	FL-PROOF RS 220 J 2W		
R42			RD14NB2E101J	RD 100 J 1/4W		
R111			RD14NB2E470J	RD 47 J 1/4W		
R127,128			RD14NB2E101J	RD 100 J 1/4W		
VR1			R12-3686-05	TRIMMING POT.(22K)		
VR2			R12-3685-05	TRIMMING POT.(10K)		
VR3			R12-1619-05	TRIMMING POT.(4.7K)		
W101-103			R92-0670-05	CHIP R 0 OHM		
W200-207			R92-0679-05	CHIP R 0 OHM		
W211,212			R92-0679-05	CHIP R 0 OHM		
D3			HZS5.1N(B2)	ZENER DIODE		
D3			RD5.1ES(B2)	ZENER DIODE		
D4			HZS3.3N(B2)	ZENER DIODE		
D4			RD3.3ES(B2)	ZENER DIODE		
D5			HSS104	DIODE		
D5			1SS133	DIODE		
D11			HZS10N(B)	ZENER DIODE		

L: Scandinavia
Y: PX (Far East, Hawaii)
Y: AAFES (Europe)
K: USA
T: England
X: Australia
P: Canada
E: Europe
M: Other Areas
R: Mexico
G: Germany
⚠ indicates safety critical components.

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Telle ohne Parts No. werden nicht geliefert.

No. 4

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
R11			RS14KB3A820J	FL-PROOF RS 82 J 1W		
R31			RS14KB3D221J	FL-PROOF RS 220 J 2W		
R42			RD14NB2E101J	RD 100 J 1/4W		
R111			RD14NB2E470J	RD 47 J 1/4W		
R127,128			RD14NB2E101J	RD 100 J 1/4W		
W46			R92-0670-05	CHIP R 0 OHM		
W48			R92-0670-05	CHIP R 0 OHM		
S101			S62-0034-05	SLIDE SWITCH CHANNEL SPACE	YMI	
D3			HZS5.1N(B2)	ZENER DIODE		
D3			RD5.1ES(B2)	ZENER DIODE		
D4			HZS3.3N(B2)	ZENER DIODE		
D4			RD3.3ES(B2)	ZENER DIODE		
D7			MA110	DIODE		
D8			HSS104	DIODE		
D8			1SS133	DIODE		
D11			HZS8.2N(B2)	ZENER DIODE		
D11			RD8.2ES(B2)	ZENER DIODE		
D111,112			MA110	DIODE		
IC1			LA1831A-KEN	ANALOGUE IC		
IC2			LC7218	IC(PLL SYNTHESIZER)		
IC12			NJM4565D	IC(OP AMP X2)		
Q1			2SC2714(R,O)	TRANSISTOR		
Q2			2SC1845(F,E)	TRANSISTOR		
Q3			2SC1740S(Q,R)	TRANSISTOR		
Q3			2SC2785(F,E)	TRANSISTOR		
Q7			2SC2412K	TRANSISTOR		
Q11			2SD863(E,F)	TRANSISTOR		
Q102			2SA1037K	TRANSISTOR		
Q104			2SA1037K	TRANSISTOR		
Q107,108			2SC2412K	TRANSISTOR	YMI	
Q109,110			2SC2412K	TRANSISTOR		
Q111			2SA1037K	TRANSISTOR		
DT1			W02-1167-05	FM FRONT-END ASSY		
TUNER UNIT (X05-4472-70) T, E type						
C1 ,2			CK73FB1H103K	CHIP C 0.010UF K		
C4			CE04LW1C470M	ELECTRO 47UF 16WV		
C5			CK73FB1H223K	CHIP C 0.022UF K		
C6			CK73FB1E473K	CHIP C 0.047UF K		
C7			CE04LW1H3R3M	ELECTRO 3.3UF 50WV		
C8			CK73FB1H682K	CHIP C 6800PF K		
C9			CK73FB1H103K	CHIP C 0.010UF K		
C10			CC73FSL1H330J	CHIP C 33PF J		
C11			CE04HW1E100M	NP-ELEC 10UF 25WV		
C12			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C13			CE04LW1HR33M	ELECTRO 0.33UF 50WV		
C14			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C15			CK73FB1H103K	CHIP C 0.010UF K		
C16			C91-0769-05	CERAMIC 0.01UF K		
C17			CK73FB1H223K	CHIP C 0.022UF K		
C21 ,22			CK73FB1H682K	CHIP C 6800PF K		
C23			CE04LW1V100M	ELECTRO 10UF 35WV		
C25			CE04LW1V100M	ELECTRO 10UF 35WV		
C27			CE04LW1V100M	ELECTRO 10UF 35WV		

L: Scandinavia
Y: PX (Far East, Hawaii)
Y: AAFES (Europe)
K: USA
T: England
X: Australia
P: Canada
E: Europe
M: Other Areas
R: Mexico
G: Germany
⚠ indicates safety critical components.

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Telle ohne Parts No. werden nicht geliefert.

No. 5

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C28			CK73FB1E473K	CHIP C 0.047UF K		
C31			CE04LW1A470M	ELECTRO 47UF 10WV		
C32			CK73FB1H103K	CHIP C 0.010UF K		
C33			CC73FCH1H270J	CHIP C 27PF J		
C34			CC73FCH1H220J	CHIP C 22PF J		
C35 -38			CK73FB1H471K	CHIP C 470PF K		
C39			CE04LW1C470M	ELECTRO 47UF 16WV		
C40			CQ92FM1H223J	MYLAR 0.022UF J		
C41			CE04HW1H2R2M	NP-ELEC 2.2UF 50WV		
C42 ,43			CK73FB1H103K	CHIP C 0.010UF K		
C45 ,46			CE04LW1V100M	ELECTRO 10UF 35WV		
C47 ,48			CE04LW1H0R1M	ELECTRO 0.1UF 50WV		
C50			C91-0769-05	CERAMIC 0.01UF K		
C51			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C52			CE04LW1C470M	ELECTRO 47UF 16WV		
C56			CC73FCH1H220J	CHIP C 22PF J		
C58 ,59			CK73FB1H472K	CHIP C 4700PF K		
C65			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C66			C91-0769-05	CERAMIC 0.01UF K		
C72			CE04LW1C470M	ELECTRO 47UF 16WV		
C107			CK73FB1E473K	CHIP C 0.047UF K		
C121,122			CE04LW1C470M	ELECTRO 47UF 16WV		
C182			CC73FSL1H150J	CHIP C 15PF J		
J1			E20-0321-05	LOCK TERMINAL BOARD(3P)ANTENNA		
CF1 ,2			L72-0536-05	CERAMIC FILTER		
L1 ,2			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
L3			L30-0496-05	FM IFT		
L4			L30-0497-05	FM IFT		
L5			L79-0125-05	LC FILTER		
L7			L30-0467-05	AM IFT		
L8 ,9			L79-0790-05	LC FILTER		
L10			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
L103			L39-1325-05	COMBINATION COIL		
L106			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
X1			L77-1122-05	CRYSTAL RESONATOR(7.2MHz)		
X2			L78-0295-05	RESONATOR (456kHz)		
R31			RS14KB3D221J	FL-PROOF RS 220 J 2W		
R42			RD14NB2E101J	RD 100 J 1/4W		
R111			RD14NB2E470J	RD 47 J 1/4W		
R127,128			RD14NB2E101J	RD 100 J 1/4W		
VR1			R12-3686-05	TRIMMING POT.(22K)		
VR2			R12-3685-05	TRIMMING POT.(10K)		
VR3			R12-1619-05	TRIMMING POT.(4.7K)		
W101-103			R92-0670-05	CHIP R 0 OHM		
W200-207			R92-0679-05	CHIP R 0 OHM		
W211,212			R92-0679-05	CHIP R 0 OHM		
D3			HZS5.1N(B2)	ZENER DIODE		
D3			RD5.1ES(B2)	ZENER DIODE		
D4			HZS3.3N(B2)	ZENER DIODE		
D4			RD3.3ES(B2)	ZENER DIODE		
D5			HSS104	DIODE		
D5			1SS133	DIODE		
D11			HZS10N(B)	ZENER DIODE		

L: Scandinavia
Y: PX (Far East, Hawaii)
Y: AAFES (Europe)
K: USA
T: England
X: Australia
P: Canada
E: Europe
M: Other Areas
R: Mexico
G: Germany
⚠ indicates safety critical components.

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Telle ohne Parts No. werden nicht geliefert.

No. 6

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
D11			RD10ES(B)	ZENER DIODE		
D111,112			HSS104	DIODE		
D111,112			1SS133	DIODE		
IC1			LA1851N	IC(AM,FM TUNER)		
IC2			LC7218	IC(PLL SYNTHESIZER)		
IC3			NJM4565D	IC(OP AMP X2)		
Q1			2SC2714(R,O)	TRANSISTOR		
Q2			2SC1845(F,E)	TRANSISTOR		
Q3 ,4			2SC2412K	TRANSISTOR		
Q5			2SA1037K	TRANSISTOR		
Q7			2SC2412K	TRANSISTOR		
Q11			2SD863(E,F)	TRANSISTOR		
Q102,103			2SA1037K	TRANSISTOR		
Q109,110			2SC2412K	TRANSISTOR		
Q111			2SA1037K	TRANSISTOR		
Q113,114			2SC2412K	TRANSISTOR		
Q116			2SC2412K	TRANSISTOR		
DT1			W02-1166-15	FM FRONT-END ASSY		
AUDIO UNIT (X09-402X-XX)						
C1 ,2			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C3 ,4			CE04LW1A101M	ELECTRO 100UF 10WV		
C5 -10			CE04LW1H220M	ELECTRO 22UF 50WV		
C11 ,12			CE04LW1H3R3M	ELECTRO 3.3UF 50WV		
C13 ,14			CE04LW1H100M	ELECTRO 10UF 50WV		
C15			CE04LW1H220M	ELECTRO 22UF 50WV		
C16			CE04LW1H100M	ELECTRO 10UF 50WV		
C17		*	CQ93FMG1H104J	MYLAR 0.10UF J		
C18 -20		*	CQ93FMG1H222J	MYLAR 2200PF J		
C21		*	CQ93FMG1H102J	MYLAR 1000PF J		
C22		*	CQ93FMG1H682J	MYLAR 6800PF J		
C23		*	CQ93FMG1H104J	MYLAR 0.10UF J		
C24		*	CQ93FMG1H682J	MYLAR 6800PF J		
C25		*	CQ93FMG1H104J	MYLAR 0.10UF J		
C26		*	CQ93FMG1H823J	MYLAR 0.082UF J		
C27		*	CQ93FMG1H681J	MYLAR 680PF J		
C28			CE04HW1E100M	NP-ELEC 10UF 25WV		
C29 ,30			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C31 ,32			CC45FCH1H470J	CERAMIC 47PF J		
C33 ,34			CE04LW1A101M	ELECTRO 100UF 10WV		
C35 ,36			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C37 ,38			CE04LW1A101M	ELECTRO 100UF 10WV		
C39 ,40		*	CQ93FMG1H104J	MYLAR 0.10UF J		
C41 -44			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C45 ,46			CE04LW1H4R7M	ELECTRO 4.7UF 50WV		
C47 ,48			CF92FV1H124J	MF 0.12UF J		
C49 ,50			CK45FF1H103Z	CERAMIC 0.010UF Z		
C51 ,52			CK45FB1H221K	CERAMIC 220PF K		
C53 ,54			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C55 -58			CK45FB1H221K	CERAMIC 220PF K		
C59 ,60			CQ93FMG1H272J	MYLAR 2700PF J		
C61 ,62			CE04LW1H100M	ELECTRO 10UF 50WV		
C63 ,64			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C65 ,66		*	CQ93FMG1H104J	MYLAR 0.10UF J		
C67			CE04LW1H100M	ELECTRO 10UF 50WV		

L: Scandinavia
Y: PX (Far East, Hawaii)
Y: AAFES (Europe)
K: USA
T: England
X: Australia
P: Canada
E: Europe
M: Other Areas
R: Mexico
G: Germany
⚠ indicates safety critical components.

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 7

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C69 ,70			CK45FF1H103Z	CERAMIC 0.010UF Z		
C71 -74			CK45FB1H221K	CERAMIC 220PF K		
C79 ,80			CQ93FMG1H821J	MYLAR 820PF J		
C83 ,84			CK45FB1H332K	CERAMIC 3300PF K		
C88			CK45FF1H103Z	CERAMIC 0.010UF Z		
C89			CE04LW1C331M	ELECTRO 330UF 16WV		
C90			CK45FF1H103Z	CERAMIC 0.010UF Z		
C91			CC45FCH1H220J	CERAMIC 22PF J		
C92			CK45FF1H223Z	CERAMIC 0.022UF Z		
C93			CE04LW1HR22M	ELECTRO 0.22UF 50WV		
C94			CE04LW1H100M	ELECTRO 10UF 50WV		
C95			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C98			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C100			CC45FSL1H470J	CERAMIC 47PF J		
C101,102			CE04LW1H3R3M	ELECTRO 3.3UF 50WV		
C103,104			CE04LW1H100M	ELECTRO 10UF 50WV		
C105,106			CK45FB1H471K	CERAMIC 470PF K		
C107,108			CC45FCH1H220J	CERAMIC 22PF J		
C109-112			CK45FB1H221K	CERAMIC 220PF K		
C117			CE04LW1C102M	ELECTRO 1000UF 16WV		
C118			CE04LW1A101M	ELECTRO 100UF 10WV		
C119,120			CK45FF1H103Z	CERAMIC 0.010UF Z		
C121,122		*	C90-3559-05	ELECTRO 4700UF 56WV	KRPXTE	
C121,122			C90-3561-05	ELECTRO 4700UF 50WV	YMI	
C123,124			CE04LW1V102M	ELECTRO 1000UF 35WV		
C125,126			CE04LW1C102M	ELECTRO 1000UF 16WV		
C127			CE04LW1A101M	ELECTRO 100UF 10WV		
C129,130		*	CQ93FMG1H104J	MYLAR 0.10UF J		
C132			CE04LW1V102M	ELECTRO 1000UF 35WV		
C134			CE04LW1H471M	ELECTRO 470UF 50WV	YMI	
C134		*	CE04LW1J471M	ELECTRO 470UF 63WV	KRPXTE	
C135			CE04EW1V221M	ELECTRO 220UF 35WV		
C137,138		*	CQ93FMG1H104J	MYLAR 0.10UF J	YMI	
C137,138			C91-1422-05	MP 0.1UF 250WV	KRPXTE	
C140-143			CK45FF1H103Z	CERAMIC 0.010UF Z		
C145			CK45FB1H102K	CERAMIC 1000PF K		
C146			CE04LW1E101M	ELECTRO 100UF 25WV	KRPYMI	
C147			CE04LW1H100M	ELECTRO 10UF 50WV	KRPYMI	
C148			CE04LW1H4R7M	ELECTRO 4.7UF 50WV		
C150			CK45FF1H103Z	CERAMIC 0.010UF Z		
C151-154		*	CQ93FMG1H104J	MYLAR 0.10UF J		
C155,156		*	CQ93FMG1H682J	MYLAR 6800PF J		
C157,158			CK45FB1H102K	CERAMIC 1000PF K		
C159			CK45FF1H103Z	CERAMIC 0.010UF Z		
J2			E63-0046-15	PHONO JACK(4P) AUX/OMNI		
J3			E70-0045-05	LOCK TERMINAL BOARD SPEAKERS		
J4		*	E63-0116-05	PHONO JACK(1P) SUPER WOOFER		
⚠ J5			E03-0146-05	AC OUTLET	KRPY	
⚠ J6			E03-0305-05	AC OUTLET	MIE	
⚠ J7			E03-0109-05	AC OUTLET	T	
J10			E58-0006-05	RECTANGULAR RECEPTACLE (19P)		
⚠ F1			F06-3027-05	FUSE (UL) (250V 3A)	KRP	
⚠ F2			F05-1623-05	FUSE (SEMKO) (250V T1.6A)	XTE	
⚠ F3 ,4			F05-1623-05	FUSE (SEMKO) (250V T1.6A)	YMI	

L: Scandinavia
Y: PX (Far East, Hawaii)
Y: AAFES (Europe)
K: USA
T: England
X: Australia
P: Canada
E: Europe
M: Other Areas
R: Mexico
G: Germany
⚠ indicates safety critical components.

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 8

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
⚠ F5			F04-2025-05	FUSE (UL) (250V 2A)	KRP	
⚠ F6			F06-2021-05	FUSE (SEMKO) (250V T2AL)	YMIXTE	
⚠ F7			F04-2025-05	FUSE (UL) (250V 2A)	KRP	
⚠ F8			F06-2021-05	FUSE (SEMKO) (250V T2AL)	YMIXTE	
⚠ F9			F06-2021-05	FUSE (SEMKO) (250V T2AL)	E	
⚠ F10 ,11			F05-5025-05	FUSE (SEMKO) (250V T5A)	YMIXTE	
CN11,12			J13-0075-05	FUSE CLIP	XTE	
CN13,14			J13-0075-05	FUSE CLIP	KRP	
CN15-18			J13-0075-05	FUSE CLIP	YMI	
CN19,20			J13-0075-05	FUSE CLIP	KRP	
CN21,22			J13-0075-05	FUSE CLIP	YMIXTE	
CN23,24			J13-0075-05	FUSE CLIP	KRP	
CN25,26			J13-0075-05	FUSE CLIP	YMIXTE	
CN27,28			J13-0075-05	FUSE CLIP	E	
CN29-32			J13-0075-05	FUSE CLIP	YMIXTE	
L1 -4			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
R100			RS14KB3D102J	FL-PROOF RS 1.0K J 2W		
R135-138			RD14NB2E220J	RD 22 J 1/4W		
R153,154			RS14KB3D100J	FL-PROOF RS 10 J 2W		
⚠ R161,162			RD14NB2E1R0J	RD 1.0 J 1/4W		
R166			RS14KB3D102J	FL-PROOF RS 1.0K J 2W		
R171,172			RD14NB2E222J	RD 2.2K J 1/4W		
R182			RS14KB3D470J	FL-PROOF RS 47 J 2W		
⚠ R183			RD14NB2E4R7J	RD 4.7 J 1/4W		
⚠ R193-196			RS14KB3DR22J	FL-PROOF RS 0.22 J 2W		
⚠ R197-199			RD14NB2E1R0J	RD 1.0 J 1/4W		
⚠ R200			R92-1769-05	CARBON 3.3M J 1/2W	KRP	
⚠ K1 ,2			S51-2094-05	MAGNETIC RELAY		
⚠ K3			S76-0009-05	MAGNETIC RELAY		
K4			S76-0005-05	MAGNETIC RELAY		
⚠ S1			S31-2322-05	SLIDE SWITCH AC VOLTAGE SEL	YMI	
⚠ D1			D3SBA20F03	DIODE		
⚠ D1			RBV-402LFA	DIODE		
⚠ D2 -9			S5688B	DIODE		
⚠ D2 -9			1SR139-100	DIODE		
⚠ D10 ,11			HSS104A	DIODE		
⚠ D10 ,11			1SS131	DIODE		
D12		*	MTZJ15(B)	ZENER DIODE		
D12			RD15ES(B2)	ZENER DIODE		
D13		*	MTZJ13(B)	ZENER DIODE		
D13			RD13ES(B2)	ZENER DIODE		
D14			HSS104A	DIODE		
D14			1SS131	DIODE		
D16 -19			HSS104A	DIODE		
D16 -19			1SS131	DIODE		
D20		*	MTZJ6.2(B)	ZENER DIODE		
D20			RD6.2ES(B2)	ZENER DIODE		
D21 ,22		*	MTZJ10(B)	ZENER DIODE		
D21 ,22			RD10ES(B2)	ZENER DIODE		
D23 ,24			HZS5.1S(B2)	ZENER DIODE		
D23 ,24			RD5.1JS(B2)	ZENER DIODE		
D31 -35			HSS104A	DIODE		

L: Scandinavia
Y: PX (Far East, Hawaii)
Y: AAFES (Europe)
K: USA
T: England
X: Australia
P: Canada
E: Europe
M: Other Areas
R: Mexico
G: Germany
⚠ indicates safety critical components.

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 9

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
D31 -35			1SS131	DIODE		
D37		*	MTZJ8.2(B)	ZENER DIODE		
D37			RD8.2ES(B2)	ZENER DIODE		
⚠ D38 ,39		*	MTZJ15(B)	ZENER DIODE		
⚠ D38 ,39			RD15ES(B2)	ZENER DIODE		
D40 -49			HSS104A	DIODE		
D40 -49			1SS131	DIODE		
IC1			NJU7313AL	ANALOGUE IC		
IC1			TC9164N	IC(16CH BILATERAL SELECTOR SW)		
IC2			NJM2058D	IC(OP AMP X4)		
IC3			NJM4565D-D	IC(OP AMP X2)		
IC4			UPC1853CT-02	ANALOGUE IC		
IC5			NJM2058D	IC(OP AMP X4)		
IC6			TC4052BP	IC(4CH MPX/DE-MPX)		
IC6		*	XRU4052BC	MOS-IC		
IC7			NJM4565D-D	IC(OP AMP X2)		
IC8			NJM2058D	IC(OP AMP X4)		
⚠ IC9			TA78057S	IC(VOLTAGE REGULATOR/+5.75V)		
IC10			NJM4565D-D	IC(OP AMP X2)		
Q1 -4			2SC1845(F,E)	TRANSISTOR		
Q5 -8			2SA992(F,E)	TRANSISTOR		
Q9 ,10			2SC2878(B)	TRANSISTOR		
Q13 ,14			2SC1845(F,E)	TRANSISTOR		
Q15			2SA1175(F,E)	TRANSISTOR		
Q15			2SA933S(Q,R)	TRANSISTOR		
Q16 -19			2SC1845(F,E)	TRANSISTOR		
Q20			2SA992(F,E)	TRANSISTOR		
⚠ Q21 ,22			2SD2493	TRANSISTOR		
⚠ Q23 ,24			2SB1624	TRANSISTOR		
Q25 ,26			2SC4137	TRANSISTOR		
⚠ Q27			2SB1370	TRANSISTOR		
⚠ Q27			2SB1375	TRANSISTOR		
⚠ Q28 ,29			2SD2012	TRANSISTOR		
⚠ Q28 ,29			2SD2061	TRANSISTOR		
Q30			2SA992(F,E)	TRANSISTOR		
Q31 ,32			2SC2003(L,K)	TRANSISTOR		
Q33			2SC1845(F,E)	TRANSISTOR	KRPYMI	
DISPLAY UNIT (X14-391X-XX)						
D38 -42			B30-2463-05	LED REW/FF/STOP/DOWN/UP		
D43 -50			B30-2462-05	LED(GRN) AUX/TAPE/TUNER/CD		
C1 ,2			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C3 ,4			C91-0729-05	CERAMIC 22PF J		
C5 ,6			C90-3242-05	ELECTRO 4.7UF 35WV		
C7			C91-0749-05	CERAMIC 220PF K		
C8			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C9			CK45FB1H102K	CERAMIC 1000PF K		
C10			C90-3242-05	ELECTRO 4.7UF 35WV		
C11 ,12			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C13			C91-0729-05	CERAMIC 22PF J		
C14			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C15 ,16			CE04LW1C470M	ELECTRO 47UF 16WV		
C17 ,18			C91-0729-05	CERAMIC 22PF J		
C19			CKAMCHH103Z	CERAMIC 0.010UF Z		
C20			C91-0749-05	CERAMIC 220PF K		

L: Scandinavia
Y: PX (Far East, Hawaii)
Y: AAFES (Europe)
K: USA
T: England
X: Australia
P: Canada
E: Europe
M: Other Areas
R: Mexico
G: Germany

⚠ indicates safety critical components.

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 10

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C22			C90-3253-05	ELECTRO 1UF 50WV		
C23			C91-0769-05	CERAMIC 0.01UF K		
C24			C90-3214-05	ELECTRO 100UF 6.3WV		
C25			CE04LW1A470M	ELECTRO 47UF 10WV		
C26		*	CQ93FMG1H103J	MYLAR 0.010UF J		
C27			CE04LW1V220M	ELECTRO 22UF 35WV		
C28 ,29			C91-0769-05	CERAMIC 0.01UF K		
C30 ,31		*	CQ93FMG1H823J	MYLAR 0.082UF J		
C32			C90-3214-05	ELECTRO 100UF 6.3WV		
C33			C90-3253-05	ELECTRO 1UF 50WV		
C34			CC45FCH1H220J	CERAMIC 22PF J		
C35			CC45FCH1H180J	CERAMIC 18PF J		
C36			C91-0769-05	CERAMIC 0.01UF K		
C37			C90-3214-05	ELECTRO 100UF 6.3WV		
C38 ,39			C90-3226-05	ELECTRO 22UF 16WV		
C40			C91-0757-05	CERAMIC 1000PF K		
C41			C91-0769-05	CERAMIC 0.01UF K		
C42			C90-3212-05	ELECTRO 47UF 6.3WV		
C43			C91-0769-05	CERAMIC 0.01UF K		
C44 -46			C91-0749-05	CERAMIC 220PF K		
C47 ,48		*	C90-3257-05	ELECTRO 6.8UF 50WV		
C49			CK45FF1H103Z	CERAMIC 0.010UF Z		
C50			C90-1827-05	ELECTRO 0.047UF 5.5WV		
C51 ,52		*	CQ93FMG1H223J	MYLAR 0.022UF J		
C53		*	CQ93FMG1H102J	MYLAR 1000PF J		
J1		*	E11-0262-05	MINIATURE PHONE JACK MIC		
J2			E11-0234-05	PHONE JACK PHONES		
L1 ,2			L40-1011-17	SMALL FIXED INDUCTOR(100UH,K)		
X1			L78-0605-05	RESONATOR (8.38MHz)		
X2			L77-2111-05	CRYSTAL RESONATOR(32.768kHz)		
CP1			R90-0802-05	MULTI-COMP 100KX10 J 1/4W		
CP2			R90-0500-05	MULTI-COMP 100KX6 J 1/4W		
CP3			R90-0856-05	MULTI-COMP 10KX5 J 1/6W		
CP4			R90-0482-05	MULTI-COMP 100KX4 J 1/6W		
R15 ,16			RD14NB2E470J	RD 47 J 1/4W		
VR1		*	R31-0005-05	VARIABLE RESISTOR DUAL SOUND		
VR2		*	R31-0004-05	VARIABLE RESISTOR MIC MIXING		
S1 -29			S40-1064-05	PUSH SWITCH		
S30		*	T99-0554-05	ROTARY ENCODER VOLUME CONTROL		
D1 -14			HSS104A	DIODE		
D1 -14			1SS131	DIODE		
D15 ,16		*	MTZJ3.9(B)	ZENER DIODE		
D15 ,16			RD3.9ES(B2)	ZENER DIODE		
D27			HSS104A	DIODE	TE	
D27			1SS131	DIODE	TE	
D28			HSS104A	DIODE	X	
D28			1SS131	DIODE	X	
D29			HSS104A	DIODE	YMIX	
D29			1SS131	DIODE	YMIX	
D30 -37			HSS104A	DIODE		
D30 -37			1SS131	DIODE		
D51		*	MTZJ5.1(B)	ZENER DIODE		

L: Scandinavia
Y: PX (Far East, Hawaii)
Y: AAFES (Europe)
K: USA
T: England
X: Australia
P: Canada
E: Europe
M: Other Areas
R: Mexico
G: Germany

⚠ indicates safety critical components.

PARTS LIST

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 11

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
D51			RD5.1ES(B2)	ZENER DIODE		
D52			HSS104A	DIODE	YMI	
D52			1SS131	DIODE	YMI	
ED1		*	10-BT-144GK	INDICATOR TUBE		
IC1		*	M38197MA-074FP	MI-COM IC		
IC2			M66310FP	MOS-IC		
IC3			XR-1091ECP	IC(GE FILTER)		
IC4		*	S-806E-Z	ANALOGUE IC		
IC5 ,6			NJM4565D-D	IC(OP AMP X2)		
IC5 ,6			XRA15218-DX	IC(OP AMP X2)		
Q1			2SC4038(Q,R)	TRANSISTOR		
Q2			2SA1175(P,E)	TRANSISTOR	YMI	
Q2			2SA933S(Q,R)	TRANSISTOR	YMI	
Q3 -6			2SC4038(Q,R)	TRANSISTOR		
A1			W02-1174-05	ELECTRIC CIRCUIT MODULE		
A1		*	W02-1191-05	ELECTRIC CIRCUIT MODULE		

L: Scandinavia **K**: USA **P**: Canada **R**: Mexico
Y: PX (Far East, Hawaii) **T**: England **E**: Europe **G**: Germany
Y: AAFES (Europe) **X**: Australia **M**: Other Areas

⚠ indicates safety critical components.

A-E5/L

SPECIFICATIONS

A-E5

FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Sensitivity (IHF) ..... 13.2 dBf (1.2 μV at 75 Ω)
Signal to noise ratio at 1 kHz
MONO ..... 75 dB (65 dBf input)
STEREO ..... 68 dB (65 dBf input)
Selectivity (IHF ± 400 kHz) ..... 50 dB
Stereo separation (IHF at 1 kHz) ..... 40 dB
Frequency response ..... 30 Hz ~ 15 kHz + 0.5 dB, – 3 dB

AM Tuner section

Tuning frequency range
9 kHz step ..... 531 kHz ~ 1,602 kHz
10 kHz step ..... 530 kHz ~ 1,610 kHz
Usable sensitivity ..... 12 μV / (500 μV / m)
Signal to noise ratio ..... 48 dB

Amplifier section

Rated power output ..... 60 W + 60 W (EIAJ, 6 Ω)
Total harmonic distortion
..... 0.09 % (1 kHz, 1 / 2 Rated power, 6 Ω)
Signal to noise ratio
..... 81 dB (IHF'66)
Input sensitivity / Impedance
AUX ..... 200 mV / 47 kΩ
MIC ..... 3.5 mV / 22 kΩ
Output level / Impedance
SUPER WOOFER PRE OUT ..... 2.0 V / 600 Ω
OMNI PRE OUT ..... 1.0 V / 1 kΩ

[General]
Power consumption ..... 150 W
Dimensions ..... W : 270 mm (10-5 / 8")
H : 205 mm (8-1 / 16")
D : 293 mm (11-9 / 16")
Weight (net) ..... 5.8 kg (12.8 lb)

A-E5L

FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Sensitivity (DIN at 75 Ω)
MONO ..... 1.0μV / 11.2 dBf
Signal to noise ratio
(DIN weighted at 1 kHz, 65.2 dBf input)
MONO ..... 65 dB
STEREO ..... 62 dB
Selectivity (DIN ± 300 kHz) ..... 64 dB
Stereo separation (DIN at 1 kHz) ..... 40 dB
Frequency response ..... 30 Hz ~ 15 kHz + 0.5 dB, – 3 dB

MW Tuner section

Tuning frequency range ..... 531 kHz ~ 1,602 kHz
Usable sensitivity ..... 12 μV / (500 μV / m)
Signal to noise ratio ..... 48 dB

LW Tuner section

Tuning frequency range ..... 153 kHz ~ 279 kHz
Usable sensitivity ..... 22 μV
Signal to noise ratio ..... 45 dB

Amplifier section

Rated power output ..... 55 W + 55 W (DIN, 6 Ω)
Total harmonic distortion
..... 0.09 % (1 kHz, 1 / 2 Rated power, 6 Ω)
Signal to noise ratio
..... 81 dB (IHF'66)
Input sensitivity / Impedance
AUX ..... 200 mV / 47 kΩ
MIC ..... 3.5 mV / 22 kΩ
Output level / Impedance
SUPER WOOFER PRE OUT ..... 2.0 V / 600 Ω
OMNI PRE OUT ..... 1.0 V / 1 kΩ

[General]
Power consumption ..... 150 W
Dimensions ..... W : 270 mm (10-5 / 8")
H : 205 mm (8-1 / 16")
D : 293 mm (11-9 / 16")
Weight (net) ..... 5.8 kg (12.8 lb)

KENWOOD CORPORATION
14-6, Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150 Japan

KENWOOD SERVICE CORPORATION
P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745 U.S.A.

KENWOOD ELECTRONICS CANADA INC.
6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

KENWOOD ELECTRONICS LATIN AMERICA S.A.
P.O. BOX 55-2791, Piso 6 Plaza Chase, Cl. 47 y Aquilino de la Guardia, Panama, Republic de Panama

TRIO-KENWOOD U.K. LIMITED
KENWOOD House, Dwight Road, Watford, Herts, WD1 8EB United Kingdom

KENWOOD ELECTRONICS BENELUX N.V.
Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH
Rembrücker Str. 15, 63150 Heusenstamm, Germany

TRIO-KENWOOD FRANCE S.A.
13 Boulevard Ney, 75018 Paris, France

KENWOOD ELECTRONICS ITALIA S.p.A.
Via G. Sirtori, 7/9 20129 Milano, Italy

KENWOOD ESPAÑA S.A.
Bolivia, 239 08020 Barcelona, Spain

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD. (A.C.N. 001 499 074)
P.O. BOX 504, 8 Figtree Drive, Australia Centre, Homebush, N.S.W. 2140, Australia

KENWOOD & LEE ELECTRONICS, LTD.
Unit 3712-3724, Level 37 Tower 1, Metroplaza, 223 Hing Fong Road, Kwai Fong N.T., Hong Kong

KENWOOD ELECTRONICS SINGAPORE PTE LTD.
No. 1 Genting Lane # 07-00, KENWOOD Building, Singapore, 1334

KENWOOD ELECTRONICS (MALAYSIA) SDN BHD
10 th Floor, Block B, Wisma Semantan, No. 12, Jalan Gelenggang, Bukit Damansara, 50490 Kuala Lumpur, Malaysia

KENWOOD follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.